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ABSTRACT

The writing across the curriculum movement is discussed in six articles. Barbara Leigh Smith's introductory article, "Writing Across the Curriculum: What's at Stake?" reviews the rationale for this movement, including the declining emphasis on writing in high schools and colleges. In the "Winds of Change: Thomas Kuhn and the Revolution in the Teaching of Writing," Maxine Hairston considers the nature of a paradigm shift in the teaching of writing and the influences that have occurred in the last 25 years, as well as Kuhn's theory of scientific change. Twelve main features of a new paradigm for teaching writing are also identified. The next article by B. L. Smith is an interview with Elaine Maimon, who is a leader in the writing across the curriculum movement. It is argued that writing is a central learning skill in all fields and at all levels. Applications of the writing across the curriculum movement are addressed in two articles: "What Works: The Problems and Rewards of Cross-Curriculum Writing Programs" (Joan Graham) and "Applying the Writing Across the Curriculum Model to Professional Writing" (Christopher Rideout). College programs, including professional and graduate level applications of the model, are addressed. Finally, an annotated bibliography on writing across the curriculum by Charles A. Bergman is provided. (SW)

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Writing Across the Curriculum

Barbara Leigh Smith, guest editor

Maxine Hairston

Joan Graham

Christopher Rideout

Charles A. Bergman

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Writing Across the Curriculum: What's At Stake?

Barbara Leigh Smith

A quiet but important transformation in the teaching of writing is taking place in America's colleges and universities. This transformation has important implications because it represents a significant critique of education as well as a shift in the pedagogy of a discipline. It has spawned hundreds of new programs in institutions of all sizes; conferences and publications on the subject abound. It is fostering new relationships within and between institutions promoting re-examination of the way teaching and learning is structured and practiced.

Writing Across the Curriculum and other related "across the curriculum" movements reflect a significant criticism of the organizational structure, the pedagogy, the goals, and the educational outcomes of many of our contemporary educational institutions. They are a response to the fragmentation of the curriculum, the frequent separation of skill and content teaching, as well as the localization and denigration of responsibility for teaching writing and other essential abilities that should permeate all of the disciplines. And they are based upon the recognition that too much teaching is directed at getting students to learn content and the moral reward structure of the teacher rather than the essential skills they need to become life-long learners in a rapidly changing world.

In the past fifteen years, there has been a decreasing emphasis on writing in our schools. This is true in both high schools and colleges. A variety of factors have contributed to this: the increasing class size; increasing diversity of students and institutions; the specialization in the disciplines with a dominant emphasis on content learning and teaching; and the localization of responsibility for teaching writing in departments of English. In many cases, these departments have relegated this responsibility to those most marginal in the status

system of the university—teaching assistants and newly hired, untenured professors. Often it is regarded as "necessary drudgework" rather than a serious pursuit.

This localization of responsibility has a number of undesirable consequences. First and foremost, it leads to lack of sustained practice for the student. A number of studies describe the resulting deterioration of students' writing abilities over the course of their college careers and attribute it to the fact that writing skills have not been continually practiced. Furthermore, when writing is taught in the conventional manner, it is frequently divorced from both content and context. The result is often low student motivation and involvement, a perception that writing is not central to the other, more important parts of the curriculum, and a lack of attention to the varying contextual and stylistic standards of the different disciplines. A variety of scholars, notably Mina Schaughnessy, James Kinneavy, and Elaine Maimon, discuss the importance of this socialization as the rhetorical norms and standards of the disciplines. This is not easily accomplished in most English composition courses, and when there is little or no emphasis on writing in the disciplines, it is not learned there either. The result is often that writing is seen as a narrowly defined concern with punctuation, spelling, rules of grammar, and mechanics rather than a critical substantive act of thinking and invention central to all fields. This notion persists despite our own personal recollections of the trials and tribulations of the writing process.

It is ironic that the emphasis on writing declined in our schools at almost precisely the time when significant new research was being undertaken on the composing process and the important connections between writing and thinking, and writing and active learning.



Barbara Leigh Smith

There are a number of common threads among the across the curriculum movements in writing, critical reasoning, and moral development. They share a number of assumptions about the social nature of the learning process and the close relationship between thinking, reading, and writing skills. Many people also see the issue of values, personal empowerment, and building skills for the thoughtful practice of citizenship as important common aspects of their reforms. Both

A number of studies describe the resulting deterioration of students' writing abilities over the course of their college careers and attribute it to the fact that writing skills have not been continually practiced.

James Kinneavy and James Britton stress the value of writing as a means of active learning to build individual responsibility and judgment. Kinneavy stressed the pernicious effect of relegating responsibility for values and ethics and rhetoric to the departments of philosophy and English respectively, separating them from the other "content" departments of the university. In a similar vein, Ed Corbett argues that the writing across the curriculum movement is an important effort to restore the most enduring features of the liberal arts to the nation's colleges and universities. There are also many commonalities between the movement's strategies for implementation and pedagogical assumptions. The potential for cross-fertilization is substantial and is just beginning to be recognized. For example, the writing across the curriculum movement has generated a wealth of information on the composing process and a variety of approaches for the classroom that also could be used in teaching critical reasoning. The critical reasoning movement is just beginning to move toward an emphasis on construction and composing. This will require greater integration into the disciplines. Scholars in both areas recognize the importance of having students extensively use these skills. Learning the theory behind informal logic

and doing exercises analyzing the arguments of others only goes so far. Eventually, students must be able to transfer these abilities to their own writing and thinking.

Anyone following these movements and attending conferences on these subjects will be surprised and exhilarated at the size and breadth of the audiences. The across the curriculum movements have shown a remarkable ability to attract faculty from diverse fields and institutions. A recent conference on Critical Reasoning and Moral Development at Sonoma State University attracted over 500 attendees; there were almost equal numbers of high school, community college, and college and university participants. What becomes almost immediately clear is that more is at stake for many of the participants than simply new approaches to teaching writing. Writing across the curriculum and the other across the curriculum movements have become forums for wide ranging discussions about the goals of education and the nature of teaching and learning for many participants. Moreover, they speak to a pent-up need for faculty development in an unthreatening and community-building way. Writing across the curriculum is building bridges, within and between institutions, and faculty are responding with a new and broader sense of educational purpose and community.

The articles in this monograph discuss the writing across the curriculum movement in some detail. Maxine Hairston's lead article provides essential background. Although she does not discuss writing across the curriculum specifically, her article helps explain the origins of many of its precepts.

The second article is an interview with Elaine Maimon who is one of the leading figures in the writing across the curriculum movement. Maimon describes the assumptions behind it as well as some of the important considerations in establishing such programs. Both of these articles clearly show that the writing across the curriculum movement is not a simpleminded, "back to basics" reform, nor is it based on the remediation model of composition. At its core is a more fundamental thesis about the meaning and importance of writing to the educational enterprise. It argues that writing is a *central* basic skill, but is even more im-

portant as a central *learning* skill in all fields and at all levels.

The first two articles generally sketch the history and theory of the writing across the curriculum movement. The remaining articles by Joan Graham at the University of Washington and Chris Rideout at the University of Puget Sound

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detail applications of this approach. Graham describes a number of undergraduate writing across the curriculum programs. As Graham indicates, programs have been established in many different colleges and universities, and have taken a variety of different forms. One of the important reasons these programs have flourished is their adaptability. They are succeeding in large and small institutions, technical colleges, liberal arts schools, and large research universities, as well as in traditional high schools. They are not costly to establish and even in these tight budgetary times, they are striking a responsive cord in widely varying environments.

In the final article, Chris Rideout describes professional and graduate level applications of the writing across the curriculum model. Although there are fewer institutional examples, it is clear that writing across the curriculum is also having an impact at the graduate level. Rideout has been a key figure in establishing a model program at the University of Puget Sound School of Law. There seems to be growing interest in such efforts in a number of professional fields, including law, engineering, and nursing.

An annotated bibliography on writing across the curriculum by Charles Bergman concludes the monograph for readers interested in pursuing the subject in greater detail.

The Winds of Change: Thomas Kuhn and the Revolution in the Teaching of Writing

Maxine Hairston

In 1963, the University of Chicago Press published a book titled *The Structure of Scientific Revolutions*, written by Thomas Kuhn. Kuhn hypothesizes about the process by which major changes come about in scientific fields, and conjectures that they probably do not evolve gradually from patient and orderly inquiry by established investigators in the field. Rather, he suggests, revolutions in science come about as the result of breakdowns in intellectual systems, breakdowns that occur when old methods won't solve new problems. He calls the change in theory that underlies this kind of revolution a *paradigm shift*. I believe we are currently at the point of such a paradigm shift in the teaching of writing, and that it has been brought about by a variety of developments that have taken place in the last 25 years.

The Current-Traditional Paradigm and Its Proponents

In order to understand the nature of that shift, we need to look at the principal features of the paradigm that has been the basis of composition teaching for several decades. In "Paradigms and Patterns" Richard Young describes it this way:

The overt features . . . are obvious enough; the emphasis on the composed product rather than the composing process; the analysis of discourse into description, narration, exposition, and argument; the strong concern with usage . . . and with style; the preoccupation with the informal essay and research paper; and so on.¹

Underlying the traditional paradigm is what he calls the "vitalist" attitude toward composing: that is, the assumption that no one can really teach anyone else how to write because writing is a mysterious creative activity.

James Berlin and Robert Inkster ascribe other features to the conventional paradigm. Basing their conclusions on an analysis of repeated patterns in four well-known and commercially successful rhetoric texts, they add that the traditional paradigm stresses expository writing to the virtual exclusion of all other forms, that it posits an unchanging reality which is independent of the writer and which all writers are expected to describe in the same way regardless of the rhetorical situation, that it neglects invention almost entirely, and that it makes style the most important element in writing.²

I would make three other points about the traditional paradigm. First, its adherents believe that competent writers know what they are going to say before they begin to write; thus their most important task when they are preparing to write is finding a form into which to organize their content. They also believe that the composing process is linear, that it proceeds systematically from pre-writing to writing to rewriting. Finally, they believe that teaching editing is teaching writing.

The traditional paradigm did not grow out of research or experimentation. It derives partly from the classical rhetorical model that organizes the production of discourse into invention, arrangement, and style, but mostly it seems to be based on some idealized and orderly vision. It is a prescriptive view of the creative act, a view that defines the successful writer as one who can systematically produce a 500-word theme. Its proponents hold it *a priori*; they have not tested it against the composing processes of actual writers.

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Maxine Hairston

At this point some of my readers may want to protest that I am belaboring a dead issue — that the admonition to “teach process, not product” is now conventional wisdom. I disagree. Although those in the vanguard of the profession have by and large adopted the process model for teaching composition and are now attentively watching the research on the composing process in order to extract some pedagogical principles from it, the overwhelming majority of college writing teachers in the United States are not professional writing teachers. They are trained as literary critics first and as teachers of literature second. Yet, out of necessity, most of them are doing half or more of their teaching in composition. And they teach it by the traditional paradigm, just as they did when they were untrained assistants ten or twenty or forty years ago.

Out of necessity, apathy, and what I see as a benighted and patronizing view of the essential nature of composition courses, English department administrators encourage this unprofessional approach to the teaching of writing. In the first place, they may believe that they have so many writing classes to staff that they could not possibly hire well-qualified professionals to teach them; only a comparatively few such specialists exist. Second, most departmental chairpersons do not believe that an English instructor needs special qualifications to teach writing.

I think, however, that the people who do most to promote a static and unexamined approach to teaching writing are those who define writing courses as service courses and skills courses; that group probably includes most administrators and teachers of writing. Such a view, which denies that writing requires intellectual activity and ignores the importance of writing as a basic method of learning, takes away any incentive for the writing teacher to grow professionally. People who teach skills and provide services are traditionally less respected and rewarded than those who teach theory, and hiring hordes of adjuncts and temporary instructors and assigning them to composition courses reinforces this value system. Consequently, there is no external pressure to find a better way to teach writing.

In spite of this often discouraging situation, many teachers who cling to the traditional para-

digm work very hard at teaching writing. They devote far more time than they can professionally afford to working with their students, but because they have not read Elbow or Bruffee they have no way of knowing that their students might benefit far more from small group meetings with each other than from the exhausting one-to-one conferences that the teachers hold. They both complain and brag about how much time they spend meticulously marking each paper, but because they haven't read Diederich or Irmscher they do not know that an hour spent meticulously marking every error in a paper is probably doing more harm than good. They are exhausting themselves trying to teach writing from an outmoded model, and they come to despise the job more and more because many of their students improve so little despite their time and effort.

But the writing teacher's frustration and disenchantment may be less important than the fact that if they teach from the traditional paradigm, they are frequently emphasizing techniques that the research has largely discredited. As Kuhn points out, the paradigm that a group of profes-

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sionals accepts will govern the kinds of problems they decide to work on, and that very paradigm keeps them from recognizing important problems that cannot be discussed in the terminology of their model. Thus, teachers who concentrate their efforts on teaching style, organization, and correctness are not likely to recognize that their students need work in invention. And if they stress that proofreading and editing are the chief skills one uses to revise a paper, they won't realize that their students have no concept of what it means to make substantive revisions in a paper. The traditional paradigm hides these problems.

Textbooks complicate the problem further. As Kuhn repeatedly points out, the standard texts in any discipline constitute a major block to a paradigm shift because they represent accepted authority. Many, though certainly not all, of the standard textbooks in rhetoric and composition for the past two decades have been product-centered books that focus on style, usage, and argumentation. When Donald Stewart made an analysis of rhetoric texts three years ago, he found that only seven out of the thirty-four he examined had any awareness of current research in rhetoric. The others were, as he put it, "strictly current-traditional in their discussions of invention, arrangement, and style."³

Signs of Change

Nevertheless, changes are under way, and the traditional prescriptive and product-centered paradigm that underlies writing instruction is beginning to crumble. Forces contributing to its demise are both theoretical and concrete and come from both inside and outside the profession. Changes in theory probably started, in the middle 1950's, from intellectual inquiry and speculation about language and language learning that was going on in several fields, notably linguistics, anthropology, and clinical and cognitive psychology.

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One of the most important developments to affect writing theory was the publication of Noam Chomsky's *Syntactic Structures* in 1957. His theory of transformational grammar, with its insistent look at the rules by which language is generated, caused a new focus on the process by which language comes into being. Francis Christensen's essays on the generative rhetoric of the sentence and the paragraph in the early 1960's also stimulated new interest in the processes by which writers pro-

duce texts. The tagmemists also provoked a fresh look at the act of writing when they urged writers to generate ideas by thinking about subjects from a dynamic, three-faceted perspective. And when the humanistic psychologist Carl Rogers began to criticize behaviorist psychology just as Chomsky had criticized behaviorist theories of language, he probably hastened the shift away from product-response evaluation of writing.

A major event that encouraged the shift was the famous Anglo-American Seminar on the Teaching of English, held at Dartmouth College in 1966. The final report of this gathering of eminent educators deemphasized the formal teaching of grammar and usage in the classroom and emphasized having children engage directly in the writing process in a non-prescriptive atmosphere.

Other concrete and external forces also have been putting pressure on writing teachers. These teachers are plagued by embarrassing stories about college graduates who cannot pass teacher competency tests, and about employees who cannot write reports. And the professors agree. Their students come to them writing badly and they leave writing badly. Handbooks won't solve their problems, and having them revise papers does no good.

Worse, just at the time when they are most disheartened about teaching writing, large numbers of English professors are beginning to realize that most of them are going to be teaching a lot of writing to a lot of students from now on. The prospect is grim, so grim that the English departments at Harvard and the University of Michigan have given up and turned the bulk of their composition teaching over to specialists outside the departments. In Kuhn's terminology, their methods have become anomalous; the system that they have always depended on no longer seems to work.

But why should the paradigm begin to break down just now? I believe that the external conditions which have hastened the crisis in the teaching of writing are open admissions policies, the return to school of veterans and other groups of older students who are less docile and rule-bound than traditional freshmen, the national decline in conventional verbal skills, and the ever larger number of high school graduates going on to college as our society demands more and more cre-

dentials for economic citizenship. Any instructional system would come close to collapse under such a strain, and our system for teaching writing has been particularly vulnerable because it has been staffed largely by untrained teachers who have had little scholarly interest in this kind of teaching.

What is the basic flaw in the traditional paradigm for teaching writing? Why doesn't it work?

Following the pattern that Kuhn describes in his book, our first response to crisis has been to improvise *ad hoc* measures to try to patch the cracks and keep the system running. Among the first responses were the writing labs that sprang up about ten years ago. Another *ad hoc* remedy took the form of individualized instruction, but it has faded from the scene along with computer-assisted instruction. The first was too costly and isolated, the second proved to be too limited and impersonal. And the experiments with expressive writing also turned out to be *ad hoc* measures, although for a while they seemed to have enough strength to foreshadow a paradigm shift. Sentence combining, I predict, will prove to be another *ad hoc* measure that serves as only a temporary palliative for serious writing problems.

All these remedies have proved temporarily or partially useful; none, however, has answered the crucial question: what is the basic flaw in the traditional paradigm for teaching writing? Why doesn't it work?

The Transition Period

In the teaching of composition, the essential person who asked that question may have been Mina Shaughnessy. In her book *Errors and Expectations*, Shaughnessy describes the educational experience that made her ask, "What went wrong?"

In the spring of 1970, the City University of New York adopted an admissions policy . . . opening its doors . . . to a wider

range of students than any college had probably ever admitted or thought of admitting to its campus. . . .

One of the first tasks these students faced . . . was to write a placement essay. . . . Judged by the results of these tests, the young men and women . . . fell into . . . three groups: 1. Those who met the traditional requirements for college work, 2. those who had survived their secondary schooling . . . and whose writing reflected a flat competence; 3. [those] who had been left so far behind the others in their formal education that they appeared to have little chance of catching up . . . The third group contained true outsiders . . . strangers in academia, unacquainted with the rules and rituals of college life, unprepared for the sorts of tasks their teachers were about to assign them. . . .

Not surprisingly, the essays these students wrote during their first weeks of class stunned the teachers who read them. Nothing . . . short of a miracle was going to turn such students into writers. . . . To make matters worse, there were no studies nor guides, nor even suitable textbooks to turn to.⁴

The shock of facing a kind of writing that fit no familiar category forced Shaughnessy, at least, to recognize an anomaly. If these students had come through schools in which writing had been

If these students had come through schools in which writing had been taught with standard methods, then one had to conclude that the method did not work . . .

taught with standard methods, then one had to conclude that the method did not work, at least not for a substantial and important group of students. The question was, "Why?"

To find the answer, Shaughnessy analyzed the placement essays of 4000 students. Eventually she became persuaded . . .

*We have to do the hard thing,
examine the intangible process, rather
than the easy thing, evaluate the tangible
product.*

... that basic writers write the way they do, not because they are slow or non-verbal, indifferent to or incapable of academic excellence, but because they are beginners and must, like all beginners, learn by making mistakes. . . . And the keys to their development . . . often lie in the very features of their writing that English teachers have been trained to brush aside with a marginal code letter or a scribbled injunction to "Proof-read!" Such strategies ram at the doors of their incompetence while the keys that would open them lie in view. . . . The work [of teaching these students to write] must be informed by an understanding not only of what is missing or awry, but of *why this is so*.⁵ (italics added)

Shaughnessy's insight is utterly simple and vitally important: we cannot teach students to write by looking only at what they have written. We must also understand *how* that product came into being, and *why* it assumed the form that it did. We have to try to understand what goes on during the internal act of writing and we have to intervene during the act of writing if we want to affect its outcome. We have to do the hard thing, examine the intangible process, rather than the easy thing, evaluate the tangible product.

Although Shaughnessy was not the first investigator to try to move behind students' written products and find out how those products came into being—Janet Emig and Charles Stallard had both done limited studies at about the same time as Shaughnessy, and James Britton and his colleagues in Great Britain were working on a very ambitious study of the development of writing abilities—she was the first to undertake a large-scale research project whose goal was to find practical ways to teach the new students of the seventies to write.

Others in the profession also have given impetus to the search. In 1968 Donald Murray published *A Writer Teaches Writing*, in which he suggests that if we want to teach students to write, we have to initiate them into the process that writers go through, not give them a set of rules. He insists that writers find their real topics only through the act of writing. In fact, Murray may have originated the admonition, "Teach Writing as Process,

Not Product" in a 1972 article by that title.⁶ A resurgence of interest in classical rhetoric in the seventies also sparked interest in a new approach to the teaching of writing. The books by Richard Weaver and Edward P. J. Corbett provided the theoretical foundations for the view that writing cannot be separated from its context, and that audience and intention should affect every stage of the creative process. When this premise became widely accepted at major universities—for example, the University of Iowa and the University of Texas—it inevitably put strains on the old product-centered paradigm.

Another major influence on the teaching of writing has come from California's Bay Area Writing Project, initiated in 1975. A cardinal principle of that project has been the revolutionary thesis that all writing teachers should write in order to understand the writing process first-hand. When teachers began to do so, the traditional textbook model for writing inevitably came into question. As spin-offs of the Bay Area Writing Project have proliferated across the country, largely funded by grant money donated by agencies and foundations alarmed about the writing crisis, a growing number of teachers are changing to process-centered writing instruction.

The Emerging Paradigm

But the most promising indication that we are poised for a paradigm shift is that for the first time in the history of teaching writing we have specialists who are doing controlled and directed research on writers' composing processes. Sondra Perl of Herbert Lehman College of the City University of New York and Linda Flower and John Hayes of Carnegie-Mellon University are tape recording students' oral reports of the thoughts that come to them as they write and of the choices they make. They call their investigative strategy "protocol analysis," and they supplement it with interviews and questionnaires to put together composite pictures of the processes followed by working writers. Sharon Planko of Rutgers University has done a study in which she matched groups of traditional and remedial writers, men and women writers, and 18-year-old and adult writers and compared their composing habits. Nancy Som-

One point that is becoming clear is that writing is an act of discovery for both skilled and unskilled writers.

mers of New York University has done a study comparing the revising practices of college freshmen and experienced professional writers, and Lester Faigley and Stephen Witte of the University of Texas now have a federal grant to do a more comprehensive study on revising. Lee Odell of Rensselaer Polytechnic Institute and Dixie Goswami are currently involved in a federally-funded study of the practices of writers in business.

From these and other studies, we are beginning to find out something about how people's minds work as they write, to chart the rhythm of their writing, to find out what constraints they are aware of as they write, and to see what physical behaviors are involved in writing and how they vary among different groups of writers.

What are we finding out? One point that is becoming clear is that writing is an act of discovery for both skilled and unskilled writers; most writers have only a partial notion of what they want to say when they begin to write, and their ideas develop in the process of writing. They develop their topics intuitively, not methodically. Usually, the writing process is not linear, moving smoothly in one direction from start to finish. Writers write, plan, revise, anticipate, and review throughout the writing process, moving back and forth among the different operations involved in writing without any apparent plan. No practicing writer will be surprised at these findings; nevertheless, they seriously contradict the traditional paradigm that has dominated writing textbooks for years.

But for me, the most interesting data emerging from these studies are those that show us profound differences between the writing behaviors of skilled and unskilled writers and the behaviors of student and professional writers. Those differences involve the amount of time spent on writing, the amount of time preparing to write, the number of drafts written, the concern for audience, the number of changes made and the stages at which they were made, the frequency and length of pauses during writing, the way in which those pauses are used, the amount of time spent rereading and reformulating, and the kind and number of constraints that the writers are aware of as they work.

From all this activity in the field, the new paradigm for teaching writing is emerging. Its principal features are these:

1. It focuses on the writing process; instructors intervene in students' writing during the process.
2. It teaches strategies for invention and discovery; instructors help students to generate content and discover purpose.
3. It is rhetorically based; audience, purpose, and occasion figure prominently in the assignment of writing tasks.
4. Instructors evaluate the written product by how well it fulfills the writer's intention and meets the audience's needs.
5. It views writing as a recursive rather than a linear process; pre-writing, writing, and revision are activities that overlap and intertwine.
6. It is holistic, viewing writing as an activity that involves the intuitive and non-rational as well as the rational faculties.
7. It emphasizes that writing is a way of learning and developing as well as a communication skill.
8. It includes a variety of writing modes, expressive as well as expository.
9. It is informed by other disciplines, especially cognitive psychology and linguistics.
10. It views writing as a disciplined creative activity that can be analyzed and described; its practitioners believe that writing can be taught.
11. It is based on linguistic research and research into the composing process.
12. It stresses the principle that writing teachers should be people who write.

Portents for the Future

I believe that important events of the recent past are going to speed the revolution and help to establish this new paradigm in the nation's classrooms.

First, the University of Iowa's Writing Institute has completed its work and sent out forty administrators for writing programs who will almost certainly base those programs on the new model.

Second, graduate programs in rhetoric are rapidly increasing across the country. In the

Spring, 1980, *Freshman English News* showed that fifty-three institutions had added graduate rhetoric courses since 1974, and that was not a complete list. Enrollment in these programs is climbing because students realize that English departments now offer more jobs in rhetoric and composition than in any other specialization.

Third, in many schools, even graduate assistants who are in traditional literary programs are being trained in process-centered approaches to the teaching of composition. And, methods courses for high-school teachers also are being taught by the rhetoric specialists; that change will have a profound effect on secondary school teaching.

Fourth, we now have process-based texts on the teaching of writing. Shaughnessy's *Errors and Expectations* is well known and widely used. It has been joined by Irmscher's *Teaching Expository Writing* and Neman's *Teaching Students to Write*.

Fifth, college composition textbooks are changing. Along with their traditional books, most publishers are now publishing at least one process-oriented, rhetorically-based writing text. The change will even reach into some high schools because one large company has hired one of the country's leading rhetoricians to supervise and edit their high school composition series.

As Kuhn points out, new paradigms are apt to be crude, and they seldom possess all the capabilities of their predecessors.

But no revolution brings the millenium nor a guarantee of salvation, and we must remember that the new paradigm is sketchy and leaves many problems about the teaching of writing unresolved. As Kuhn points out, new paradigms are apt to be crude, and they seldom possess all the capabilities of their predecessors. So it is important for us to preserve the best parts of earlier methods for teaching writing: the concern for style and the preservation of high standards for the written product. I believe we also need to continue

giving students models of excellence to imitate.

Kuhn contends that "the transition between competing paradigms cannot be made a step at a time, forced by logic. . . . Like the gestalt switch, it must occur all at once (though not necessarily in an instant) or not at all."⁷ He says, however, that, "If its supporters are competent, they will improve [the paradigm], explore its possibilities, and show what it would be like to belong to the community guided by it."⁸ I see this last opportunity as the challenge to today's community of composition and rhetoric scholars: to refine the new paradigm for teaching composition so that it provides a rewarding, productive, and feasible way of teaching writing for the non-specialists who do most of the composition teaching in our colleges and universities.

Notes

¹ Richard Young, "Paradigms and Problems: Needed Research in Rhetorical Invention," *Research in Composition*, ed. Charles Cooper and Lee Odell (Urbana, Illinois: National Council of Teachers of English, 1978), p. 31.

² James A. Berlin and Robert P. Inkster, "Current-Traditional Rhetoric: Paradigm and Practice," *Freshman English News*, 8 (Winter, 1980), 1-4, 13-14.

³ Donald Stewart, "Composition Textbooks and the Assault on Tradition," *College Composition and Communications*, 29 (May, 1978), 174.

⁴ Mina Shaughnessy, *Errors and Expectations* (New York and London: Oxford University Press, 1977), pp. 1-3.

⁵ Shaughnessy, p. 5.

⁶ Donald Murray, "Teach Writing as Process, Not Product," in *Rhetoric and Composition*, ed., Richard L. Graves (Rochelle Park, New Jersey: Hayden Book Company, 1976), pp. 79-82.

⁷ Kuhn, p. 150.

⁸ Kuhn, p. 159.

An Interview with Elaine Maimon

Barbara Leigh Smith

Elaine Maimon is one of the leading figures in the Writing Across the Curriculum Movement. Professor of English and Associate Dean for Curriculum Research at Beaver College in the Philadelphia suburb of Glenside, PA, Maimon is perhaps best known as the director of Beaver's Writing Program. She has published widely on writing across the curriculum and has served as a consultant to more than 75 secondary and postsecondary institutions interested in examining and revising their writing programs.

The Beaver College Writing Across the Curriculum program has become a national model for many other colleges and universities. Its program and extensive outreach activities have been assisted by grants from the National Endowment for the Humanities. Beaver was recently awarded a major grant from the Fund for the Improvement of Postsecondary Education to initiate an "across the curriculum" program in critical reasoning.

In June 1983, Beaver College hosted a three-day national conference on writing across the curriculum attended by more than 500 high school and college teachers. It is interesting to note that the Beaver conference is only one of three major across the curriculum conferences involving writing this year which have attracted large and broadly based audiences. An earlier conference on the connections between the movements in moral development, critical reasoning, and writing across the curriculum at the University of Chicago had a waiting list of more than 250 people, and an August conference at Sonoma State University on Critical Reasoning and Moral Development drew more than 475 participants from elementary and secondary schools, as well as colleges and universities. The diversity of the audiences at these cross disciplinary conferences is perhaps as interesting

as their numbers. This is further indication of the paradigm shift that Maxine Hairston described in the preceding article.

The Beaver writing program is one of four major projects that the National Endowment for the Humanities has supported over the past ten years. Others include the Pacific Northwest Writing Consortium which includes six institutions in Oregon and Washington and is centered at the University of Oregon Honors College, the University of Iowa Project, and the Bay Area Writing Project.

In this interview, Maimon discusses the roots of the writing across the curriculum movement, its underlying assumptions, its implementation, and its implications for the liberal arts.

History

Smith: The approach called "writing across the curriculum" is certainly one of the most important offshoots of the shift in composition teaching that Maxine Hairston describes. You are one of the major figures in this movement. In your publications you argue that it has reinforced and extended the paradigm shift in composition teaching.

What are the origins of the writing across the curriculum movement and the ways in which you see it extending the paradigm shift?

Maimon: I date the beginning of the writing across the curriculum movement to 1974 and 1975 when Carleton College, under the leadership of Harriet Sheridan, instituted what I believe were the first faculty development workshops for writing across the curriculum. These took the form of summer seminars in rhetoric for faculty in various disciplines. These seminars ultimately led to curricular revisions that resulted in collegewide responsibility for writing at Carleton. The Carleton



Elaine Maimon

program inspired Beaver College to initiate a similar approach. Many have begun the process through summer workshops of this sort.

At Beaver and many other institutions, an interesting reversal of expectations took place at these workshops. English faculty found that they had to reexamine many of their tacit assumptions about teaching composition in order to explain their pedagogy to colleagues in other fields. This reexamination led inevitably to an emphasis on the writing process and a new understanding of writing as a mode of learning. These faculty writing workshops also directly and indirectly promoted collaborative learning as a mode of instruction. And, of course, because faculty were from diverse disciplines, the workshops also inevitably led to discussions about the importance of disciplinary context.

Faculty writing workshops thus enabled a cross-disciplinary group of scholars to develop programs based on a coherent and consistent pedagogical theory. On the surface, the programs look quite different, but they all have in common the systematic reexamination of the operative words—writing across the curriculum. The effort led them to redefine writing, curriculum, and the concept of moving across the curriculum.

Smith: The response to writing across the curriculum has been very positive at widely varying types of institutions. And, surprisingly, the writing across the curriculum movement seems to be generating long overdue discussions between postsecondary and secondary institutions and between two and four year colleges. How do you account for this response?

Maimon: I've often said that writing across the curriculum is not an innovation at all. What has happened is that those of us who have been trying to make connections with colleagues and students across the disciplines are simply reminding the community of something we should never have forgotten. We are reviving something that has been at the center of education for more than a thousand years. One of the interesting questions is, how did we forget to make these connections? Why in the last hundred years did rhetoric lose its place as the queen of the humanities and the center of instruction?

So one of the reasons there has been such an enormous response is because it makes sense to revive something that we never should have lost. Second, I think people become dismayed when we live in a world of fragments. Our educational world has been a place of fragments for too long. Any promise of connections and unity is very desirable.

The kind of exhilaration that I see among faculty members who participate in writing across the curriculum workshops has to do with finding something that isn't hokey, that brings people from different departments together. Even at small colleges where you would think people talk to each other all the time, faculty say "I've never really had a serious discussion with Professor so and so in Department X. This workshop really makes me see what a terrific faculty we have."

Assumptions

Smith: What are the major assumptions underlying writing across the curriculum programs? Are there are particular theorists who have strongly influenced its direction?

Maimon: Our program has been strongly influenced by the work of Mina Shaughnessy, James Kinneavy, and Kenneth Bruffee.

Shaughnessy taught us that our students' errors often reflect their innocence about the way writers behave, and that it is our job to model for them the processes of writing and revising. Shaughnessy's work demonstrated that teachers' errors in expectations about what students know are often substantial obstacles to effective learning and teaching. Shaughnessy was a great inspiration. She tried to draw together scholarship from so many areas of the humanities.

Kinneavy influenced us because of his emphasis on purpose and situation. He taught us that the aim and audience of discourse are determining factors, with modes of discourse being secondary kinds of decisions. What this means is that writing across the curriculum establishes a context in which you have real situations and real audiences. This may sound like a simple point, but it is something that was quite revolutionary in light of the way composition previously had been taught.

Shaughnessy's work demonstrated that teachers' errors in expectations about what students know are often substantial obstacles to effective learning and teaching.

Bruffee's influence was to demonstrate the importance of community, conversation, and collaborative learning in teaching writing. His program at Brooklyn College demonstrated that writing centers can be based upon principles of collaboration and consultation rather than remediation.

There are five precepts that underlie Beaver's writing program:

1. Writing, like learning, is not an entity but a process. Maxine Hairston's article discusses this shift from the emphasis on writing as product to writing as process quite well. This shift has enormous implications for the teaching of writing.

1. Writing, like learning, is not an entity but a process. Maxine Hairston's article discusses this shift from the emphasis on writing as product to writing as process quite well. This shift has enormous implications for the teaching of writing.

2. Writing is a way to learn, not merely a means of communicating to others what has already been mastered. It is a critical tool of invention and discovery central to all disciplines. Studies of the composing process are just beginning to indicate how complex the writing process actually is and how much it differs from our earlier notions and pedagogy.

3. Writing across the curriculum is influenced by ideas about the importance of learning in groups, i.e. collaborative learning. Writing and learning are connected, interactive processes. Students need instruction and practice in cooperating to learn from one another.

4. Because writing within a discipline defines and manifests fundamental processes within the discipline, the teaching of writing must be the responsibility of every scholar in every field.

5. Writing in each discipline is a form of social behavior in that discipline. Students must learn the conventions of aim and audience in each discipline, and they must also learn to control the common conventional features of the written code: spelling, punctuation, conformity to standard English usage.

Smith: How are these precepts reflected in classroom practice?

Maimon: They are reflected in my classroom through various tangible practices. For example, the curriculum emphasizes writing and rewriting. My grading policy calls for the assessment of fewer

papers, although I require more writing of multiple drafts. Drafts are rewritten to reformulate essential ideas and not just to correct proofreading errors. I use a reading list that is representative of the liberal arts with selections from historians, philosophers, social scientists, and natural scientists. I require students to share and comment on work in progress and I do the same. This demonstrates in a very real way that I, too, struggle with writing.

Implementation

Smith: You've been a consultant to a large number of different institutions which are examining their writing programs. What suggestions do you have about how to initiate discussions about writing across the curriculum? What are some of the most effective approaches to institutional change?

Maimon: Of course there is nothing to preclude any individual from designing such an approach in his or her own course. That's the way we did it here. Back in '73 and '74 I was probably the only one doing writing across the curriculum at Beaver College and I started it in my composition class. It is perfectly possible to do that.

But in terms of institutional discussion and change, I often advise not going to a faculty committee with a plan for a new curriculum because you don't want to get bogged down too soon in institutional politics. My advice has been to start with a scholarly exchange. If you want a catch phrase, curriculum exchange always has to be built on scholarly exchange among faculty. You can go in with some notion of the direction you want to go, but it seems to me that the starting point is to find a way to have groups of faculty in the institution talking to each other about the issues, reading some materials on scholarship in composition, and, if possible, participating in a workshop in which they look at a student paper and talk about it. If you have a group of faculty members look at the same student paper, they are going to have before them a burning glass for every issue in higher education. They are going to get into discussions of matters like what constitutes evidence in different fields. Ideas for curricular change always emerge from that kind of conversation.

In a sense, I am talking about desirable directions for change, both politically and intellectually. Having a program evolve in this way is so much better than any form or process I could think up alone. And it works better politically because a larger group of people has ownership of the ideas.

I often advise not going to a faculty committee with a plan for a new curriculum because you don't want to get bogged down too soon in institutional politics.

The initial conversations might take a variety of forms. At one large university I visited (the University of Pennsylvania) we knew it would be impossible to get groups of senior faculty to attend a workshop. So we developed another plan using graduate students. We knew we'd be making a real contribution if we worked with graduate students anyway since they did most of the composition teaching and they were the next generation of teachers.

The first thing we did was to ask a group of graduate students in English to sit in on classes in different departments, talk with the students, look at the syllabi, read the textbooks, and then write a report on writing within that department. While the graduate students were talking with the senior professors in the disciplines about the rhetoric of their fields, we put together a group of writing enrichment courses which used drafting procedures and conventions from their fields. It wasn't surprising, perhaps, when these departments were the first to volunteer to participate in the writing enrichment courses.

Smith: I know that, within the Pacific Northwest Writing Consortium, institutional change has come from a variety of different sources. At the University of Oregon, the Honors College provided the impetus for initiating a writing across the curriculum program. At the University of Washington, it was an interdisciplinary program in the College of Arts and Sciences. At Pacific

Lutheran University and the University of Puget Sound, the English Department initiated the effort.

In your experience, how do faculty generally respond to these programs?

Maimon: The response at Beaver and most places I've been is very positive. Faculty find the workshops fascinating. They tell me that the workshops provide an opportunity for a kind of exchange with their colleagues that they don't have in other situations. Faculty seem to become more receptive when they understand that we are not trying to make everyone become an English teacher because the Admissions Office betrayed them by letting in the wrong students. What we are doing, instead, is to reassess the role that every faculty member has in the classroom.

Once a Wellesley faculty member came up to me after a two-day workshop. He said that he expected the workshop to be about writing but found it much more revolutionary than that and he was glad to be proven wrong. "What we have been talking about," he said, "is a way to revive the study of the liberal arts and also a way to reanalyze our teaching so that we can help students to think and write instead of just expecting that of them."

Writing and the Revival of the Liberal Arts

Smith: Ed Corbett and a number of other observers describe the renaissance in writing as a revival of the liberal arts. James Kinneavy associates it with a revival in democratic citizenship. In his address at the 1982 annual meeting of the Pacific Northwest Writing Consortium, Kinneavy discussed the costliness of the exile of rhetoric from the modern curriculum in these terms. He argued that the present separation of thinking into scientific, persuasive, and esthetic thinking, and the denigration of the latter two modes, has separated the academy from the real world and broken the connection linking the humanities to the average citizen.

Do you see the transformation of writing as a revival of the liberal arts? And, if so, in what sense?

Maimon: I think that we are doing a number of things that might be defined as a revival of the liberal arts. One is that we are putting questions about invention and audience at the center of the curriculum.

Second, we are exemplifying writing and thinking in a variety of disciplinary forms which helps students to juxtapose those forms. In doing so, they come to understand that the liberal arts curriculum is not defined by bags of facts, one called psychology, one called literature, and one called economics. Rather, what defines the curriculum has to do with the different sorts of questions that the different disciplines pose about phenomena. This is something that, in my experience, I am not too confident students understand even after two, three, or four years of college. We are putting that into the freshman year so that students will be introduced to writing and thinking in the different disciplines in the composition course. The composition course is a mini-university of sorts.

Smith: The collaborative form of the writing across the curriculum program also seems to model the kind of cooperative behavior upon which democratic citizenship rests. In addition, the approach encourages students to take risks and to take positions. It's certainly a more active and social form of learning that many classrooms now provide and it encourages individual empowerment.

Maimon: Yes, and here I would like to quote to you from the preface of my new book, *Readings in the Arts and Sciences*:

"Participation in the academic conversation means more than attaining a diploma. Learning how to articulate ideas for oneself and then for others prepares students for public discourse in the society at large. Such articulate participation is essential in the United States . . . Writing enfranchises by giving people access to their own thoughts. Then, if they choose, by writing they can make their ideas accessible to others."

And, as John Gerber says "Seeing ourselves as teachers of reading and writing makes us a community again"—not only within the university, but within the society as well.

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What Works: The Problems and Rewards of Cross-Curriculum Writing Programs

Joan Graham

More and more people are talking now about the role that writing can play in the curriculum. "In" the curriculum rightly suggests a permeating effect, something infused or integrated, not just added. But the phrase commonly used to describe integrated writing programs—writing "across the curriculum"—suggests a fundamental problem: that something has to be crossed, that curriculum territories are discreet—their number can be increased or decreased but they do not readily respond to influences from outside.

Of course the intended meaning of "across" here is "including all," and that is apt; yet the suggestion that barriers exist is apt, too. The administrative structures that organize schools and the intellectual frameworks that define disciplines have obvious value. But those of us concerned with cross-curriculum writing instruction may experience them as barriers before we learn how to modify them, or to exploit them as opportunities.

We *are* learning, though. The fact that the movement has grown so fast is evidence that, for whatever variety of reasons, it has wide appeal. It has spread among institutions and within them as well. Programs have begun in various instructional units—here in a preparatory remedial curriculum, there is a set of honors core courses. Some first ventures have been designed and promoted by administrators; others have been undertaken spontaneously by faculty. Wherever a beginning is made, whatever the roles of participants or the nature of activities, once initiated, cross-curriculum writing programs tend to grow. This happens despite the new organizational and political problems they bring because they present an intellectual challenge that immediately fascinates some faculty, and because they are so clearly valuable for students.

Fundamentally, they are interesting and valuable because, by placing writing instruction in the context of study, they dramatize the value of writing as a way to learn. The stress is not so much on what a written product does for an audience as on what the writing process does for a writer. Writing is treated as a tool of inquiry, a means of focusing and developing thought.

Teachers looking for ways to promote active learning find rich possibilities in writing assignments: any course in which attention is given both to the writing process and to writing purposes as defined by context can further students' understanding of what they study and also their skill as writers. Typically, once a school starts offering cross-curriculum writing instruction in one unit or by one method, more faculty members become interested, and more program components are developed. The basic approaches are by no means mutually exclusive. In fact, they tend to inspire each other.

The first, obvious question raised by cross-disciplinary programs is who's going to do the crossing, i.e. who is going to teach in a way that takes somebody else's traditional concerns into account. Approaches can be roughly classified on the basis of the answer: either faculty in English give more attention to the subjects students study, or faculty in departments other than English give more attention to writing. Both approaches can produce extraordinary rewards. Both approaches also carry risks.

Preparing Faculty

In the first and most common approach, a program focuses on preparing faculty in the various disciplines to teach writing-emphasis courses. Workshops for the recruited faculty are usually



the central feature, and a search for ways to get faculty involved is the first task. Good guidance—particularly for large public institutions—has been offered by Jack Folsom, director of the ambitious Thinking Skills and Writing Project at Montana State University. Folsom lists a number of specific, imaginative, tactful strategies by which to spread information, stimulate discussion, and dramatize or create faculty rewards. He suggests, for example, that program developers “offer introductory two-hour or half-day workshops for individual or related departments.”

Discussing with a particular faculty what they see in students’ work, and what they would like to see—especially in the work of their majors—is a natural way to begin. But Folsom observes that before offering introductory workshops, leaders should “know the priorities, biases, formats, and at least some of the lingo of a ‘target’ department.” Folsom’s stress on the preparation of those who will conduct workshops is entirely appropriate. Usually they will be coming from a department of English, and their training is not likely to have prepared them for the ways that another discipline’s perspective and sense of purpose affect its discourse.

Once they see what is required and what implications writing in context has for theory, research, and teaching in their own field, English faculty are likely to find the discourse of other disciplines or communities very interesting. They will contribute their own well-developed sensitivity to language, and they will find that their status as outsiders with respect to a particular discipline is in some ways an advantage. Students beginning work in that discipline are outsiders too, and they need to know much more about the assumptions and expectations implicit in writing assignments than they are usually told. Workshop leaders, by asking questions about intent, will bring to the surface more of what is being assumed by faculty in other disciplines.

Introductory workshops are an efficient way to recruit faculty to teach writing-emphasis courses. They are also an opportunity to spread the basic ideas behind cross-curriculum writing instruction to whole departments, and they can begin to correct a very common misconception among non-English faculty; the majority usually

assume that teaching writing is teaching grammar, or at most, teaching organization forms. One faculty member put that conception in classic form: “I think students should be shipped over to English to learn form, then shipped back to me so I can pour the content in.” The relationship between content and form are commonly assumed to be mechanical, not organic, even though faculty members’ own experience will surely show otherwise if they think about it.

What Happens in Workshops

When faculty who volunteer to teach writing-emphasis courses take part in an extended series of workshops, they are often invited, as an opening exercise, to write a short piece and examine the process by which they produced it. That exercise has been the point of departure at Michigan Tech, for example, where 12 workshops for a total of 200 faculty were offered between 1977 and 1982. Director Toby Fulwiler listed the objectives of those workshops as follows:

- a. To explore writing as a learning activity, different from reading, talking, and listening.
- b. To discuss the principles of good writing appropriate to a university community in general and to each discipline in particular.
- c. To learn strategies for incorporating regular writing into classes in every discipline.
- d. To create a common atmosphere of understanding among faculty about communications instruction.
- e. To generate new ideas for improving the writing, reading, and speaking skills of university students.

Discussion of teaching strategies and individual instructors’ purposes should absorb the most workshop time. An appropriate theoretical orientation is vital, but talk about general issues can easily go on too long. While working with quite different faculty groups, workshop leaders at the University of Maryland and at Lewis and Clark College in Portland, Oregon reached the same conclusion; they shifted, after concentrating their first workshop series on theory, to focus instead on specific, immediate, individual projects.

Even without making special group arrangements, they can assign short exercises that increase students' respect for writing as a way to reflect and eventually say something that makes sense to someone else.

Successful workshops maintain this focus in a variety of ways. At Michigan Tech, faculty are required to keep a journal and to begin, on the first day, a piece of personal or academic writing which they will revise, perhaps repeatedly, in response to comments from their workshop peers. At Lewis and Clark College, faculty concentrate on developing syllabi for the writing-emphasis courses they will teach during the following term. Once they have drafted their plans, they explain them to each other, and the group helps develop and refine.

Workshops at Michigan Tech and at Lewis and Clark make use of collaborative learning techniques so that faculty members experience a valuable type of activity they can use in their own classrooms. Even without making special group arrangements, they can assign short exercises that increase students' respect for writing as a way to reflect and eventually say something that makes sense to someone else. Class members might be assigned to keep journals, for example, or to write briefly on an immediately pertinent topic at the beginning or end of a day's lecture.

The message that writing is important can be conveyed to students by such simple devices as lecturing on the topic, then asking them to exchange papers and respond to each other's work. That is what historian Alan Kimball has done at the University of Oregon. He had just begun to think about how he might help improve students' writing when he received an appalling set of mid-term exams and was exasperated enough to take action. To begin with, he went before his class and declared:

"You will write more beautifully and clearly before the quarter is out, whether you learn the years of the Stalinist Purges or not." This was the first principle: writing instruction may take the form of fiat.

"I value good writing and will accept nothing less than your very best." Thus the second principle: I will be sensitive to individual effort, exerted from whatever base of facility and ability, but will judge according to the highest standards I know.

"Get out a piece of paper." The third principle: we will devote sacred classroom time to this problem.

"Write quickly and expressively just what you think were the motives of the European Powers with respect to Africa, 1870-1914." The fourth

principle: we will write about what we are all trying to learn in this particular course.

"Don't try to be exhaustive or authoritative. Take your most immediate and important thoughts on this question and explore them." This followed closely from the fourth principle, but actually represented a fifth: writing is the essential agency both of *discovery* and *expression* in the liberal arts and sciences. It is both process and product.

"At 11:00 you will hand your essay to the person next to you. When each of you has read your colleague's essay, write a reply, aiming to hand it to him or her at the bell." The sixth principle: know the real person or persons to whom you are writing.

I tried not to involve myself very much in this first exercise. Thus the seventh principle: peer pressure and peer evaluation can create an atmosphere in which the high-quality expression of the personal voice is a shared expectation.

I collected subsequent in-class essays and observed a remarkable transformation from the very beginning. . . . There were still deficiencies of clarity and precision, but no evident disdain for them. Many difficulties remained, some on the surface, others deeply ingrained, but I was pleased to see that collegial review took note of these remaining difficulties and often offered encouraging advice.

Kimball's exercise suggests one way that collaborative activity can encourage students to think of writing as making meaning. Such activity can also help build a sense of community. At Skidmore College, each faculty workshop participant is asked to bring a short writing assignment to be given to students early in the term. A geologist brings some rock samples and a question about classification; an art historian brings a chapter from a textbook, a painting or a statue, and a question about the period to which it might likely belong. Then all participants assume the role of students, and write responses to each other's assignments. Direct confrontation with the objects of each other's study both dramatizes differences and aids in developing a sense of shared purpose. Furthermore, all participants experience some of the uncertainty and anxiety of student writers when they address new kinds of tasks.

That is good preparation for faculty who will next consider complex questions of assignment design. Constructing an assignment that is challenging yet accessible takes time. It requires working

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out the role of the assignment in relation to larger course objectives, deciding how—and how much—to say about what should be done, and scheduling stages of preparation of preliminary work. Some collaborative learning activities may well be in order, since in small groups students can help each other by exploring issues and critiquing drafts. But good group activity doesn't just happen; it has to be deliberately planned if the learning opportunity implicit in a good assignment is to be fully realized.

Responding to students' writing is the last major topic that faculty workshops virtually always address. Some general considerations are easy enough to identify, e.g. it is a promising sign when faculty begin to speak of "commenting on" rather than "correcting" papers. But beyond such signs of general orientation to useful types of response, evaluation issues become complicated.

As the contexts for assignments vary, so do values. Composition researcher Lee Odell has pointed out that, although evaluators of writing agree that "quality of ideas" is the most important consideration, the phrase means different things to different people. "Quality" may be strongly associated with accuracy in physics, practicality in business, or imagination in political science. What is valued in various contexts is the same only at a very high level of generalization.

The timing and length questions require more complicated decisions to take into account an institution's specific aims and the special characteristics of its curriculum and faculty. Workshops at Lewis and Clark College have been designed especially to aid teams of instructors who will teach the required three-term freshman core course known as "Society and Culture." Workshop participants meet first for two days in June for introductory discussion of such matters as the relations between writing and learning, and the varying levels of cognitive demands made by different types of assignments. Then they work on their course plans independently during the summer. In August they reconvene and each member presents a tentative syllabus. Discussion of problems and alternative materials and strategies aids further planning of not only individual courses but also of sequences. The Lewis and Clark teaching teams for "Society and Culture" now work to-

gether more so that each series of assignments moves logically to make increasingly sophisticated demands and each course capitalizes more deliberately on students' previous experience. Workshop participants meet at the end of a term to evaluate and refine their courses.

The Lewis and Clark program is typical in that the most concentrated faculty development work is done during the summer when participants are not teaching and schedules are most flexible. However, there are good arguments for arranging faculty workshops concurrently with teaching. That has been feasible at Hunter College, a branch of CUNY. Hunter faculty receive one course of released time when they take part in a weekly writing seminar for a whole semester. "We wanted to confront the problems of students' writing, not indirectly by simulation or substitution, but directly," explained seminar leader Ann Raimes. "After all, we had the real thing right there. Why not use it? Why not bring our own weekly classroom experiences into the seminar for discussion, and our own weekly seminar findings right back into the classroom?"

The somewhat ironic result of an effort to get a whole faculty to use the same vocabulary for commenting and grading confirms this. During a four-year series of faculty seminars and workshops, California State College at San Bernardino tried to arrive at "campus-wide uniform terminology," and agreement was finally reached on just four words: Substance, Organization, Mechanics, and Evidence. Those words, known as the SOME Criteria, are now used as headings for categories in commenting on students' work. The quest for shared terms served to provoke important discussion among the San Bernardino faculty, and the limited result is in fact a good sign, for it shows that they seriously explored their own expectations. Furthermore, it preserves for students the prospect of receiving comments that are appropriately specific to their intentions.

Workshop Design

In addition to the content of faculty workshops, consideration must be given to their sponsorship, timing, and length. The sponsorship question is simple: to establish the idea that writ-

The San Bernardino project holds one message that is vital for all developers of cross-curriculum writing programs; pervasive change of the kind we seek takes time.

ing is a shared concern, workshops should be initiated and supported by a campus writing center, a cross-college committee on writing or general education, or the central college or university administration.

There are clearly some advantages to discussing a course while it is in progress. But such an arrangement is not often possible, and there are other ways to get intense engagement and practical results. At Montana State University, experiments with ways to improve 15 different courses were conducted during the academic year before the first summer faculty workshop. Some faculty experimented with what computers can do to aid development of reasoning and writing skills. Others responded enthusiastically to offers of collaboration—typically an English instructor helped a colleague in another department with the design of assignments and worked directly with that colleague's students who wanted help with their writing. Although some of the experiments were more formal than others, all helped convey the idea that practical research was in progress to evaluate models.

California State College at San Bernardino has conducted two types of faculty workshops: four-day seminars to discuss writing issues with large groups, and four-week workshops to train a small number of faculty to take on new roles. One fourth of the 145 member San Bernardino faculty took part each year for four years. Project Director Helen Koon said that, at first, influencing an entire faculty looked like an impossible task. But despite the uphill prospect and the possibility that fourth year participants would be a concentration of the most reluctant of all, the project went forward. Besides the seminars for large groups, month-long workshops prepared five or six faculty members from outside the School of Humanities each year to teach a section of freshman composition. Those teachers also became consultants to other faculty in their respective schools. Occasional weekend meetings during the term provided moral support for the new teachers of composition, and day-long February retreats gave summer participants an opportunity to review problems and renew their commitment. The project is now complete, and its success is clear; Koon noted that there was a perceptible turn after the second

year, as the proportion of participating faculty increased and the word had time to spread within departments. Participants in the fourth and last summer seminar turned out to be just as engaged and productive as the rest.

The San Bernardino project holds one message that is vital for all developers of cross-curriculum writing programs; pervasive change of the kind we seek takes time. Five years of focused, strenuous work is necessary for a small school; ten years is a realistic minimum for a large school.

Writing and Knowing

Program development takes time because it brings to the surface the most fundamental questions about learning. Discussing writing assignments means discussing what it is that a course is intended to teach. Surprisingly often, faculty really have not articulated course aims for themselves, and when they do, it sometimes becomes clear that they are much more concerned with "covering the material" than they are with students' ability to make use of new perspectives, theories, and facts.

An article in the September 1983 issue of *College English*, by C. H. Knoblauch and Lil Brannon, titled "Writing as Learning Through the Curriculum," identifies the danger that faculty will fail to recognize or capitalize on the value of writing as a tool of thought. The authors report that their review of high school and college cross-curriculum writing programs . . .

shows the greater number of them to be little more than "grammar across the curriculum." . . . English teachers counsel their colleagues in other departments about deviations from "standard written English" so that history and biology teachers can learn to "correct" student writing with the same reverence for prose decorum displayed by the English department. Even at their best, such programs emphasize "packaging information across the curriculum," offering ideal models for the presentation of knowledge in different fields. . . .

The trouble is, many teachers preserve notions about the nature of knowledge and learning which limit their ability to recognize the heuristic value of composition. Instructors both in English and other fields often assume that knowledge is a stable and bounded artifact, a collection of information, a set of facts and ideas to be delivered to

"Learning" means receiving information; "knowing" is the condition of having retained it, which can be measured by students' ability to report it in writing at a teacher's discretion.

students through lectures and course readings. The goal of instruction is to "cover" a subject by enumerating its relevant data. The teacher as knower recalls the body of facts and conveys it to students, learners, who passively receive and store it, perhaps for later retrieval in term papers or examinations. "Learning" means receiving information; "knowing" is the condition of having retained it, which can be measured by students' ability to report it in writing at a teacher's discretion. Teaching means turning learners into knowers by passing on to them the substance of knowledge.

These assumptions are venerable and deep-seated—and wrong. A more plausible argument, substantiated over three hundred years of insight and research, is that knowing is an activity, not a condition or state, that knowledge implies the making of connections, not an inert body of information, that both teachers and students are learners, that discourse manifests and realizes the power to learn, and that teaching entails creating incentives and contexts for learning, not a reporting of data. Specifically, learning is the process of an individual mind making meaning from the materials of its experience.*

It is not so much that cross-curriculum writing instruction can do harm as that it can fail to accomplish great good. The contrast can be observed, for some programs *are* accomplishing such good. Consider these comments by Penny Jameson of the department of psychology at St. Mary's College in Notre Dame, Indiana who was speaking at the 1983 CCCC, the annual convention for faculty concerned with writing instruction:

I am a psychologist—and a teacher of psychology. I am beginning to consider myself a teacher of writing, and am becoming convinced that careful attention to the process of writing allows me to teach some of the art of psychology in addition to its content.

A statement credited to Einstein has haunted me . . . "Education is what you have left after you have forgotten every fact you learned." I ask myself what am I teaching in my courses? What will my students have after they have forgotten every fact they learned? (And I have enough of them take second courses from me to be humble about what they do retain.) I must confess that—like most teachers, I suspect—the Introduction to Psychology course was for many years my least favorite course. It is traditionally taught as an encyclopedic collection of concepts, vocabulary, facts—an overview of the surface of Psychology. When you forget the facts

from such a course, you have nothing. The image I developed of what was going on in the classroom was that the students were all interchangeable "go-fers"—mindlessly transporting materials virtually unchanged from text and lecture to my desk. I would ask for a definition of an Id, and 60 of them would transport the same definition (assuming they studied) of the Id—an oversimplified version presented in their textbook or in my lecture. It was pretty boring. I found that it was an effort to learn their names—because it didn't really make any difference. I knew nothing about them, or about their minds. Nor am I convinced they had learned anything about themselves.

Are there alternatives to this model of teaching? Eight years ago I decided to join our writing program. If I couldn't feel justified teaching them collections of facts, maybe I could teach them to write about those facts. I began giving the students predefined rhetorical structures in which to transport their facts and concepts to my desk. What I received when I gave them both the information and the container was still quite boring, and considerably harder to grade than a multiple-choice exam. The students said I was ruining their writing, and I think they were right. It wasn't their writing. I was defining not only *what* they were going to say, but *how* they were going to say it. My assumption of control of these two levels of expression doubled their anxiety and did nothing for my boredom. I had developed a pedagogy that was totally depersonalizing. . . .

The problem for me became one of bringing the individual to the foreground and to use method and content to develop a reciprocity between the systems of thought of self and other in such a way that both become clarified. Psychology and writing seem happily suited to serve just such functions, to work together to produce a humanizing pedagogy.

Speaking of specific aspects of her course revision, Professor Jameson says,

I changed from using the encyclopedic text to original sources. My students begin the course reading Freud, and progress to Skinner, Piaget, Frankl—a sampling of the major theoretical frameworks and theorists of psychology. This is by no means a minor change. The nature of the course is now to emphasize systems of thought. . . . Thus there may be a happy ending—or beginning. I can't tell you now if things seem right because I have figured out—for the time being—a style of teaching consistent with my values and my discipline, or if it is

Yale's Committee on Expository Writing had decided that a curriculum change was in order since the school was providing "almost no systematic training in writing outside the English department."

that all of the freshmen who liked my course last semester told their friends and relations to take it this semester, thus loading it with congenial sorts. But something is working.

Only in the last five years have faculty outside English begun to take part in writing instruction. Professor Jameson was more eloquent than some, but she made what is becoming a familiar point: when asked to participate in the St. Mary's writing program, she agreed to do so as long as she did not have to change her course design. She was assured she didn't *have* to change it, but soon she did, and the very thing she resisted has become, for her, the most valuable result of the experience.

Teaching Writing in Tutorials and Lecture Sections

In many cross-curriculum programs, faculty are not the only participants. And teaching courses is not their only responsibility. Graduate students may play an important role by working with students enrolled in large lectures. Yale's Committee on Expository Writing had decided that a curriculum change was in order since the school was providing "almost no systematic training in writing outside the English department." The Committee decided to concentrate on redesigning courses already being offered, and that led to new training and new responsibilities for graduate students. Joseph Gordon and Linda Peterson explain this aspect of Yale's activities as follows:

At the beginning of the program, most of the courses available for adaptation offered little practice in writing and even less instruction than practice. A typical lecture course in the social sciences, for example, required only a single paper, due at the end of the term, produced with little guidance except as to length. Many of these courses, however, broke into sections for one hour each week. Systematic instruction in writing might go on in these sections, if frequent short assignments that grew out of and led back into the lectures could replace the term paper and if students could have sufficient opportunity for rewriting and for individual conferences.

Normally, the advanced graduate students who conducted these sections as teaching fellows were paid out of departmental funds. For budgetary reasons, the average section size had swollen to thirty—far too large a group for close work

on writing. So the Committee on Expository Writing designed a program of "Writing Intensive" sections and offered to pay the salaries for teaching fellows at the ratio of one TF to every fifteen students. To qualify for this help, the lecturer would agree to increase and redesign his writing assignments and allow time both in class and in conferences for instruction in writing.

Changes such as more frequent assignments and increased attention to finished papers would be merely mechanical if the assignments were poorly designed and the attention untrained. To avoid such problems, the Committee sponsors a series of training workshops every semester for TF's, who must attend the workshops or forfeit their salaries. The workshops take up both practical matters and theoretical issues in the teaching of writing: design and variety of assignments, approaches to paper comments, procedures for revision and group discussion of drafts, techniques for conferences, and the like.

The Committee on Expository Writing now supports about 90 sections in more than 30 different courses each year. "The roster includes Galaxies and Cosmology (astronomy), Evolution (biology), The Keynesian Revolution (economics), German Cinema and the Language of Film (German), Developmental Psychology (psychology), and Religion in America (religious studies), although most of the courses offered are in the humanities and social sciences." In cases where a lecture class is fairly small, e.g. 40-50 in art history, all sections may be Writing Intensive. Where lecture classes are very large, only designated sections are Intensive, and instructors decide who should enroll in them—perhaps all majors, or all sophomores, or all who choose. Students in Writing Intensive sections write more papers and may take fewer exams. The graduate teaching fellows who conduct these sections soon will be faculty members themselves, and they get experience that will improve their future work.

Cross-curriculum writing programs have also stimulated tutorial instruction of all kinds. Yale has tutors, a staff of professional writers, editors, and teachers, in its residential colleges. In some schools, English department faculty offer tutorial assistance to students working on projects in other fields. In the Honors College at the University of Oregon, English faculty teach in the cluster of courses which make up the core program; they

An interesting side-effect of the Writing Fellows' work has begun to appear: faculty members are taking note of the kinds of comments that WF's have made on drafts, and their own comments are improving.

also serve as tutors, or consultants, as they are called, and consult with other cluster-course faculty on the design of their writing assignments, and with students on the drafts of their papers.

Writing assistance from undergraduate peer tutors has been available on many campuses for some time, and programs involving the work of such tutors are rapidly growing stronger. Some tutors are placed in the dormitories where students live, as in the Residential Advisor Program at the University of Pennsylvania. Many others work in writing centers where the problems addressed were once mainly remedial. Most centers now serve writers of all abilities in all disciplines, and increasingly sophisticated training for tutors is helping to change their image. At Pacific Lutheran University in Tacoma, Washington a new center was established just last year. There the tutors—again called “consultants”—function as “trained readers who ask questions, then offer suggestions and advice that student writers can accept or reject on their own. The consultants are trained to help student writers clarify their own purposes in their drafts.”

Peer tutoring possibilities are still being developed. The accumulating experience of cross-curriculum programs has shown how valuable it is for those who give advice on writing—whatever their role—to be involved in the situation for which the writing is being prepared. At Brown University, tutors, called Writing Fellows, take a semester-long course on writing and responding to the writing of others; then they are attached to particular lecture courses. Writing Fellows are paid \$300 per semester for their work, and just 20 are accepted for training each year. Competition is keen—in the third year of the program, the 20 were chosen from a total of 130 students nominated by their departments. Once they are assigned to a particular course, they read the course material and attend the lectures to keep up with the experience of the class, and serve as first readers for students' papers. In most cases they work with large general education courses, but some are attached to upper division courses for majors. Whatever the course, all students are required to submit drafts to the Writing Fellows for conference discussion, and include the draft on which the WF has written comments with the final ver-

sion that is submitted to a faculty member. An interesting side-effect of the Writing Fellows' work has begun to appear: faculty members are taking note of the kinds of comments that WF's have made on drafts, and their own comments are improving.

New Approaches for English Departments

In the ways of providing writing instruction discussed up to this point, English department faculty serve mainly in advisory roles. The emphasis is on what writing can do for subject-discipline study. But there is some “crossing” in the other direction as English faculty consider what subject-discipline study can do for writing.

The most common expression of English instructors' new interest in the work of other disciplines is in the revision of freshman composition courses. In most institutions, such courses have long been—and continue to be—the foundation of the writing program. But their strength has repeatedly been called into question. Students typically have been assigned writing tasks unrelated to their other academic work. They have often felt they were writing in a void, without real purpose or audience. Hence, their energy investment has been low. Like faculty, they have generally considered composition important, but because they have been writing merely to produce writing, they have not felt challenged. Their teachers have often identified the composition course with drudgery and frustration. So, the prospect of bringing in tasks and material from other courses or disciplines is being greeted with enthusiasm.

That enthusiasm is a healthy sign, but changing what is done in composition courses while maintaining them as autonomous curriculum units is trickier than it might appear. Assuming that they are acting in the spirit of reform, some teachers have simply introduced a variety of new readings associated with disciplines other than English. Lewis Thomas's *Lives of a Cell* is a favorite faculty choice to represent the natural sciences. Thomas's essays are about biological phenomena, but they were written for an aesthetic and persuasive purpose—they make fine material for a course in prose style or the art of the essay,

The most common expression of English instructors' new interest in the work of other disciplines is in the revision of freshman composition courses.

but they are fundamentally unlike most writing students will encounter in biology courses.

Freshman composition courses at Beaver College are run primarily as writing workshops. Although a class as a whole is introduced to writing processes, collaborative learning procedures, and a small set of common readings, much time is given to individual writing projects, including some assigned in other courses. Attendance in the composition class is required, and each student must produce at least 1000 words per week. At least one of the four major pieces of writing done in the course *must* be in response to an assignment made in another course. So students get writing instruction when they actually have writing to do.

Elaine Maimon, director of the Beaver program, has observed that "this practice of encouraging students to make their content area writing assignments the work of their freshman level composition classes leads naturally to cooperation between the composition staff and colleagues in other departments." One of the basic appeals of cross-curriculum writing instruction is that it tends to bring faculty together over questions of mutual concern. If composition teachers are to make full use of the opportunity to work with students who are writing in response to real, outside audiences, they must learn as much about the expectations of those audiences as they can. The one serious limiting factor is time; a teacher cannot become as fully acquainted with students' various contexts and assignments as would be most valuable, and students similarly know less than they might about each other's purposes.

The Beaver composition course probably goes as far as an autonomous course can go to integrate writing instruction with the subjects students study. This autonomy is relinquished in a second type of course in which English faculty take the aims of other disciplines into account. This is the adjunct writing course, which is deliberately designed to accompany a particular lecture offering in a subject discipline.

Adjunct writing courses have been offered here and there, usually on an *ad hoc* basis, but only recently have some institutions begun to develop adjunct course programs.

The University of California at Los Angeles is using fully developed adjunct writing courses in

its summer program for underprepared students and in its honors program; it is also offering an increasing number of two-credit Writing Intensives, mostly in conjunction with upper division lecture courses. The Intensives are provided at a lecturer's request and contingent on two promises: that at least eight students will be enrolled, and that lecture course assignments will be put in writing and not abruptly changed. The intensives are attached to lectures in fields from art history to zoology, and there are more requests for them than can be met. The sociology department now requires its majors to take Intensives attached to its courses.

The Intensives are distinctly experimental. Instructors' sense of what can be done with them is constantly evolving, and the possibility of making some of them full, four-credit courses is being discussed. The flexibility of the easily added two-credit unit would be lost, however, and feasibility questions have not yet been resolved.

The University of Southern California is working on other ways to create adjunct courses. Michael Holzman, director of the Freshman Writing Program, first devised a co-registration procedure to sort students enrolling in freshman composition courses according to the general education courses they planned to take. Pairing specific composition sections with lectures in history or sociology or biology did, at minimum, allow writing instructors to use relevant examples in their classes. Some lecturers collaborated actively with writing instructors, and those instructors made full use of the opportunity, so "their students were, in effect, taking an eight-unit course in writing and history, say, rather than two, four-unit courses."

Among the most developed adjunct course programs are those at the University of California at Davis and at the University of Washington where participating teachers are convinced that, for large institutions at least, they have found the most concentrated, dramatically productive way to provide writing instruction across the curriculum. Since I am the director of the UW program, I am hardly an unbiased observer. But the experience of teaching our linked courses has convinced everyone who has tried it. Tim Lulofs of the Davis program is also enthusiastic.

There are some differences between the programs, but more similarities. The UW program is older—after two years of experiments with the basic course design, a regular pattern of offerings was established with the help of a FIPSE grant in 1977. The Davis program was instituted in 1980 and now offers about the same number of courses as the one at the UW.

The distribution of courses is different, however. At Davis, eight of the thirteen courses offered in Winter 1984 are paired with lectures in the natural sciences. Those courses, all designated sections of English 102, are coordinated with such courses as bacteriology, chemistry, and nutrition. The rest of the Davis offerings are paired with social science lectures, as are the majority of the offerings at the UW. The UW program also links some courses with humanities lectures and will not begin until Fall 1984 to develop links with the natural sciences. There is, however, a course for honors students in the natural sciences core sequence; linked writing courses are part of the required core program for those seeking college honors.

UW writing teachers regularly attend lectures, read assigned texts, and examine professional writing in the relevant fields. They know their perspective on both student work and professional work is constantly improving, and they are

The University of California at Los Angeles . . . is offering an increasing number of two-credit Writing Intensives, mostly in conjunction with upper division lecture courses.

a bit impatient with what has become a standard pronouncement about cross-curriculum writing programs: Almost everybody says that only faculty in a given discipline can teach writing in that discipline. That is, of course, part of the rationale for asking discipline faculty to take part in cross-curriculum programs, and the value of their participation is beyond question. But the statement that English faculty cannot teach writing in a dis-

cipline is true only if it means they cannot do it immediately or from the outside. If faculty in English seek to become acquainted with a field, and if they deliberately take part in the discourse community created in a particular lecture class, they can contribute their own expertise in a way that is not only legitimate but broadly useful. After all, they are experienced analysts of prose and active readers. That is what students need to be in every field.

Broad Effects of Cross-Curriculum Programs

Writing across the curriculum brings into focus the creation and communication of meaning. It is concerned with the nature of understanding and the basis of community. And it has begun to regenerate a sense of community in academe.

Evidence of that regeneration is accumulating gradually, and it will be a long time before its full intellectual and social effects are felt. But some extraordinary things have already happened, both inside institutions and among them. On the west coast, schools of varying sizes are developing cross-curriculum programs and, more importantly, they are communicating with each other. With the help of an NEH grant, six colleges and universities in Washington and Oregon have created the Pacific Northwest Writing Consortium (PNWC). Its purpose is to strengthen the various cross-disciplinary activities already begun on each campus and to encourage the communication of experience among the campuses and beyond.

One member of the Consortium, The Evergreen State College, has always made writing central to course work since its entire curriculum is an integrated studies program. There are no departments at Evergreen, so although faculty have, of course, been trained in particular disciplines, they are accustomed to working together on subjects and strategies of mutual interest. Now, Evergreen is concentrating on outreach programs with community colleges and area high schools. Recently, for example, 25 faculty members from Tacoma Community College went to Evergreen to discuss approaches to writing across the curriculum; also, exchanges of faculty have been arranged with area high schools, and next year two courses on writing

If faculty in English seek to become acquainted with a field . . . they can contribute their own expertise in a way that is not only legitimate but broadly useful.

will be offered for teachers in near-by high schools and community colleges.

On the east coast, too, there is burgeoning activity at all types of schools. A few schools now have "comprehensive" writing programs with many components involving many faculty members from the disciplines. Instruction is offered "horizontally" across the disciplines and also "vertically" as both lower and upper division work. Program administration is wholly or partly in the hands of a cross-college committee.

Yale has a College Committee on Expository Writing which is advisory to the English department and has a budget of its own. It supports the Writing Intensive sections of lecture courses and encourages the development of new offerings for upperclassmen called Special Courses in Writing. These are usually "small seminars for juniors and seniors in their major fields—which examine modes of exposition and argument peculiar to their disciplines . . . the Committee funds the Special Courses with the expectation that departments will incorporate them into the regular curriculum, and will require them of students in the major." So far, Special Course offerings include seminars in anthropology, history, art history, women's studies, and molecular biophysics and biochemistry. The Intensives and Special Courses are conducted by graduate students and faculty in the disciplines. The Committee on Expository Writing also supports two kinds of tutorial instruction with two kinds of staffing: tutors in the residential colleges who offer counsel for student projects and are not affiliated with any department and tutors who conduct the recently revived Daily Themes course and are members of the department of English. At the base of all these activities is the introductory course sequence in Freshman English, administered and funded, as in the past, by the English department.

The comprehensive program at the University of Michigan has even more components. The cross-college policy-making body is known as the English Composition Board (ECB), and is constantly involved in negotiations as new course designs are proposed, new administrative, teaching, and research roles are defined, and new theoretical issues are raised. As the agent of the faculty, the Board administers the entrance essays required of

all incoming undergraduates; supports tutorial instruction for students who demonstrate need; oversees courses with which students may fulfill the introductory composition requirement (there are several, including the freshman course offered by the English department); supports a writing workshop where individual instruction is available to every student; supervises junior/senior writing courses "offered and required mainly in students' areas of concentration;" and sponsors "research in to the effectiveness of all parts of the program." Furthermore, the ECB provides various kinds of assistance to discipline faculty who are developing upper-division writing-emphasis courses and sponsors weekly seminars for TA's in English, conducted by faculty in other disciplines.

Finally, the ECB, with the support of the Mellon Foundation, has pursued an ambitious outreach program. The Board has its own fourteen-member faculty, which has implemented the program with help from faculty in English and other departments. Teams have gone to high schools, community colleges, and other colleges and universities within the state and elsewhere. Workshops and summer institutes have been held on the Michigan campus. A number of schools have adopted parts or all of the Michigan program. The Ann Arbor School District, for example, now conducts its own summer institutes for teachers in its 26 schools. And, in higher education, Michigan's experience is now influencing practice as far away as Louisiana and Arizona.

At many schools, as at Michigan, an intense interest in theoretical as well as practical issues underlies cross-curriculum program development. One indicator: a conference on the discourse of the disciplines will be held in November, 1984, sponsored by the Pacific Northwest Writing Consortium and hosted by the University of Washington. Another kind of indicator: publication in the field of composition is increasing. And for the first time, most of it is articles and books are for teachers, not texts for students.

Applying the Writing Across the Curriculum Model to Professional Writing

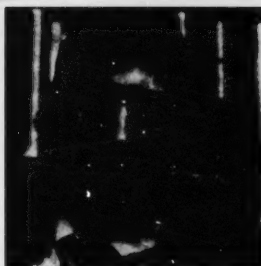
Christopher Rideout

Fifteen years ago, many college English departments were questioning the need for a required freshman writing course. Today those same departments, and others, are examining ways of not only improving students' fundamental writing skills but also of equipping students for the diverse kinds of writing tasks that they will encounter throughout the university. Two of the most recent approaches to the latter are writing across the curriculum programs and professional writing programs. Writing across the curriculum programs began appearing in the mid-1970's, most notably with the program at Beaver College; professional writing programs, which have existed since the 1940's, have just recently begun to receive renewed interest within the English profession. In common practice, the two kinds of programs remain separate. At some schools, however, the two have met to produce some valuable responses to the complex problem of how to improve students' writing.

At a superficial glance, professional writing programs appear to be one version of writing across the curriculum programs. Certainly, most professional writing programs do tie writing instruction to the subject matter of another discipline or profession. And, by their very existence, professional writing programs implicitly reinforce the importance of writing in that discipline. By nature, however, the goals of professional writing programs would seem more utilitarian: they prepare students to write for a particular kind of job. Writing across the curriculum programs, on the other hand, attempt to incorporate writing into the process of learning about a discipline. The professional writing program seems to aim beyond the classroom, where writing is used to communicate; the writing across the curriculum program seems to aim at the classroom itself, where writing becomes a means of intellectual inquiry.

In the past, writing for the professions usually took the form of business communications courses and courses in technical writing and editing. Such courses, whether offered by the English department or taught independently of that department, have long represented a form of professional writing instruction attached to a substantive curriculum. The program in Scientific and Technical Communication, offered at the University of Washington, typifies the current status of these programs. Courses are offered within the College of Engineering, although students from the entire campus may enroll. Students pursuing a B.S. in Engineering may add the program to their curriculum by taking seven additional classes and an internship, all in some area of technical writing and communication. Students from the College of Arts and Sciences, presumably those pursuing a science degree, may add the program in a similar fashion.

The course titles reflect the utilitarian intent of the classes: scientific and technical writing, scientific and technical editing, computer documentation, preparing proposals. In each course, the writing appears to be functional, a means to the broader goal of clear communication of information. The design of these kinds of courses, however, often delegates a much deeper role to language than mere functionalism. For example, the syllabi and texts for technical writing courses long have attended to rhetorical principles, such as definition, classification, comparison, or persuasion. These principles transcend the individual subject matter of any profession and also bear some relationships to patterns of thinking shared by many disciplines. This attention to rhetorical principles, then, represents an important step toward the underpinnings of writing across the curriculum taken years ago by most technical writing programs.



Christopher Rideout

A recent study of writing in professional work settings further indicates that technical and professional writing programs should move beyond the functional view of language and writing.¹ The authors, Odell et. al., studied the writing practices of non-academic writers and then compared these practices with the models for writing offered in professional writing classes. The authors found that the groups of professional writers they studied held very sophisticated views of writing: these writers frequently had to explore their subject thoroughly in order to write about it and had developed conceptual strategies to help them with the process of formulating ideas. The results echo the underlying assumptions of the writing across the curriculum movement—writing was inseparable from learning, and inquiry into the subject was an important step in the writing. The authors of the study suggest that students in technical and professional writing courses should be taught a set of strategies for using writing as a means of inquiry and for analyzing their audience in addition to the more usual attention to format and style. Writing, in these classes, would go beyond the merely utilitarian.

Integrating Writing into Professional Programs

Some professional writing programs have taken a step in the direction of this broader definition for writing pedagogy. Carnegie-Mellon, for example, which now offers a Master's degree in professional writing, emphasizes theory and general methodologies under the notion that the students' eventual employment will determine the practical applications of this theory. Such a program lends itself to the assumption that writing involves modes of inquiry and skills in organization and audience analysis that cut across the barriers which otherwise separate the disciplines.

Writing instruction is also being tied to professional applications through programs that could more properly be called writing across the curriculum programs. One of the largest of these programs is at the University of Texas at Austin. Students from the professional schools receive integrated writing instruction at Texas in two ways. The third in a series of three required English

courses offers a concentration in the student's area of study, including two concentrations for students in professional programs. After this course, students take two additional courses in their majors; these two courses include writing instruction offered by faculty members within that specific discipline. Thus, students in professional programs would receive writing instruction tailored to their area of interest in at least three courses, one offered by the English department and two offered through their professional programs.

The University of Alabama has inaugurated a similar program in which all students must receive significant writing instruction in at least two of their junior- or senior-level courses. As in the program at Texas, faculty from the various disciplines, including the professional schools, are the ones offering the writing instruction. Both programs offer professional students the opportunity to encounter writing not only as a means of communication but also as a part of their mastery of the conventions of that discipline. Many other universities have adopted programs similar to these two; the sizes of the schools range from the multi-versity, such as UCLA, to the small liberal arts college, like Beaver College. Despite the size of the school, however, the impact on courses within a professional discipline can be the same. When those instructors integrate writing into their courses, they may begin to teach students strategies for using writing not only as a means of communication but also as a conceptual tool.

Writing Instruction and Engineering—One Model

Intensive, integrated writing instruction has been concentrated within an engineering curriculum at Stanford University in the School of Engineering's Communications Project. Ellen Nold, a professor of English who directs the project, describes the two kinds of faculty who participate in this writing project as "nuts" and "normals."² The "nuts," as she describes them, are faculty members who have volunteered to spend part of their class-time offering writing instruction and who are willing to engage personally in that instruction. Nold labels these volunteers "nuts" because of the extra time and effort they must devote in order to offer

The "normals" are engineering faculty who do not wish to actually participate in the teaching of writing, but who are willing to promote writing in their course.

writing instruction alongside the other subjects that they teach. However, Nold points out that these teachers must devote such extraordinary effort because they want their engineering students to learn how to write. As a consequence, they structure the writing assignments carefully and coach their students on how to revise.

Such professors have avoided the danger common to most efforts to integrate writing instruction into courses from other disciplines: that

The "nuts," as she describes them, are faculty members who have volunteered to spend part of their class-time offering writing instruction and who are willing to engage personally in that instruction.

the participating faculty will spend the bulk of their time red-marking students' writing errors without bothering to help the student understand or remedy the sources of the writing problems. An instructor's attention to the entire writing process is important for the success of writing across the curriculum programs, as Nold remarks. "The teaching cycle is not complete when the professor spends his or her time editing, after which the student merely notes with a sigh the sprinkle (or the deluge) of red. What seems a reasonable effort will not bring reasonable return, and the editing professor will soon tire of his or her under-rewarded efforts."³ When the instructors pay fuller attention to the students' writing, the writing itself becomes a more integral part of the students' learning in the course.

Unlike the "nuts," the "normals" are engineering faculty who do not wish to actually participate in the teaching of writing, but who are willing to promote writing in their course. Thus, these faculty members will devote class time to writing so long as they are not responsible for that instruction. Instead, such instruction is provided by tutors trained in methods of assigning and evaluating writing. The tutors usually come from the

ranks of the upper-level engineering students and are selected for, among other things, their ability to write. In their training workshop, they discuss methods of teaching writing and teach under the supervision of an experienced tutor. Nold reports that for the faculty wanting to participate in this program, the demand for tutors has outstripped the supply. Nold's project has demonstrated one way in which writing and learning can go hand-in-hand even within a professional school's curriculum.

Writing Instruction and Law

Writing instruction is also included in the professional curriculum of many law schools, usually in a first-year course titled Legal Writing and Research. The course may be one semester or a year long. Commonly, however, these courses emphasize legal research at the expense of writing instruction, and the instructors rarely, if ever, have any training in writing instruction. Recognizing this shortcoming and responding to calls within the legal profession for improved writing skills, some law schools have begun to study the writing abilities of law students and to consider improved methods of teaching legal writing. The University of Texas School of Law sponsored one such study, conducted by three members of the English Department.⁴

In the Texas study, law students wrote two sample essays. The first required them to organize, develop, and support an argument in response to a problem; the second required students to read a complex legal document, select the necessary information from that document, and organize and write a readable summary. The results of this study confirm the premises upon which most writing across the curriculum programs have been constructed. The law students scored highest in the area of mechanics (punctuation, grammar, spelling) and second in the area of style. These scores indicate that the students could, to a certain extent, rely upon the knowledge of sentence structure which they acquired as undergraduates. Within the category of style, however, wordiness was the most frequent cause of low scores. Problems with wordiness more frequently reflect an

uncertainty about what to say than an inadequacy in vocabulary. Wordiness is an element of style that is tied to content; content and organization, the third category of scores in this study, received the lowest scores. As the study implies, this low rating in content and organization could reflect a serious shortcoming in the writing instruction offered to law students. While mechanics and clarity of style is important for any professional writing, deficiencies in content and organization threaten the very purpose for which professionals write. This latter deficiency is also tied more intimately to the students' learning and mastery of the law.

Not surprisingly, then, the authors of the Texas study recommend that writing instruction be integrated with the substantive course work of first-year law students. This integration would result in two major changes: first, writing instruction would take place in conjunction with the students' learning about a traditional area of law so that the two could reinforce each other; and second, members of the full faculty would participate in the writing instruction.

The School of Law at the University of Puget Sound has already undertaken the effort to integrate legal writing instruction more fully into the law school curriculum. The school started with funding from a local Cheney Foundation grant to study its existing legal writing program and to design changes; the changes have been made with help from a National Endowment for the Humanities grant, which the school shares with six other schools in the Pacific Northwest Writing Consortium. Throughout the program's design, the U.P.S. Law School has tried to incorporate the best features of the writing across the curriculum model.

The first change entailed revising the legal writing curriculum. Originally, legal writing had been a one-year course, covering everything from writing a legal memorandum to writing and presenting an appellate brief. Because of its span, the course syllabus contained little formal writing instruction. The same material is now contained in a required three-semester sequence of legal writing courses. During the first year, students concentrate on objective and advisory writing in the form of legal memoranda and client letters. They also polish their writing skills, learn how to handle

the syntax in long, complex sentences, and discuss the peculiar features of legal language. The first-year courses, although offered separately and for full credit, are paired with a substantive course, for example in contracts or torts. All the students in any legal writing class will also be taking the same substantive class, and their writing assignments are made in that area of the law. The legal writing instructors and the substantive law professor coordinate the assignments. The syllabus goes beyond mere practice in mechanics and style. In the second year at U.P.S., students take a one-semester course in persuasive writing. The writing in this course is rhetorically much more sophisticated and requires a fuller understanding of legal analysis; in these ways, the course builds on the first-year course.

The legal writing instructors at U.P.S. are hired on full-time contracts and are always law school graduates; most have some credentials in writing, either from law review, previous teaching experience, or clerking with a federal judge. During the summer, the instructors attend a three-week writing workshop, modeled after the summer workshops at other schools with writing across the curriculum programs. A writing advisor from the English Department and a member of the law school faculty conduct the workshop; during the 1983 workshop, a consultant from Brooklyn College also conducted a three-day ses-

The law students scored highest in the area of mechanics . . . and second in the area of style. . . . Content and organization, the third category of scores in this study, received the lowest scores.

sion. In the workshops, the instructors review the elements of good writing and learn methods of teaching writing. They also discuss topics of special concern to a course in legal writing, such as persuasive writing. This three-week workshop is followed by weekly workshops throughout the school year; the weekly workshops are coordinated with topics on the legal writing syllabi.

In addition to coordinating writing instruction with the substantive law courses and hiring instructors with legal backgrounds, the program at U.P.S. borrows from the writing across the curriculum model in two other ways. First, the writing assignments are structured rhetorically. Students begin by writing a legal memorandum, an objective form of writing addressed to another le-

All the students in any legal writing class will also be taking the same substantive class, and their writing assignments are made in that area of the law.

gal professional; the purpose of the memorandum is to inform the reader about a legal question. The first-year students also write client letters, an advisory form of writing; the purpose of the letter is still to inform but the reader has now become a layperson and the writer must pay greater attention to clarity and readability. Finally, students encounter persuasive writing in their second year of law school. In this form of legal writing, the reader, a judge, is the most demanding of audiences, and students find that all elements of good writing—analysis, organization, style, and mechanics—become more difficult to handle effectively.

The legal writing program is process-oriented. Students must revise every assignment they hand in. As a part of their workshop, the legal writing instructors discuss how to conduct conferences with students while the students' writing is in the draft stage. In these conferences, a discussion of the students' writing often entails a discussion of the students' legal analysis. Students can also have writing conferences with two writing advisors from the English department, who are available throughout the school year. The writing advisors conduct what amounts to a writing center at the law school, handling topics that range from basic skills in mechanics to advanced matters of style.

U.P.S.'s legal writing program also extends into the professional community through a Continuing Legal Education course in writing. Practicing attorneys work on writing materials similar to some of those used in the school's legal writing courses; the attorneys also attend a conference conducted by a writing instructor. Some of the observations and advice gleaned from these practicing professional writers is in turn incorporated into the revisions of the legal writing courses at the law school.

The experience in the U.P.S. Legal Writing Program has confirmed the conclusions of the study at the University of Texas Law School. For most students who are mastering a discipline, even at the post-undergraduate level, that mastery takes place in a significant way by writing in that discipline. Most often, students have to confront a discipline—the conventions of its discourse, the modes of analysis, the means of gathering and presenting evidence—when their instructor asks them to write. At the U.P.S. Law School, then, the first-year students are literally learning the law by writing about it.

Lessons from the Past

This emphasis on writing as learning must be carefully built into the design of professional writing programs. If it is not, the programs can too easily suffer from the shortcomings recently described by Knoblauch and Brannon for their evaluation of writing across the curriculum programs.⁵

The first potential shortcoming would be that teachers from other disciplines, when evaluating the writing of their students, over-emphasize correctness and grade down primarily for deviations from standard written English. Knoblauch and Brannon label this practice "grammar across the curriculum." While the mechanical correctness of a manuscript does reflect the writer's professional competence, to some extent, good professional writing entails much more. In professional writing programs, this shortcoming can be addressed in workshops on the nature of the writing process and on methods for evaluating essays.

The second potential shortcoming would be that professional writing programs overemphasize formats and models for professional prose, leading to what Knoblauch and Brannon call "packaging information across the curriculum." Professional writing programs sometimes reduce writing to this static model because they are practice-oriented and emphasize the uses of writing within a profession rather than the uses of writing for learning about or mastering the profession. Yet the two uses cannot be separated so easily; most students who are learning to write within a profession are also still learning about that profession.

What we have learned is that when writing courses are carefully integrated into a professional program, students can learn to regard writing as a valuable professional tool rather than as a barren, utilitarian skill. At the same time, professional writing programs can draw on their rhetorical strengths so that the reader and the reason for writing to that reader are readily identifiable.

Notes

¹ Lee Odell, Dixie Goswami, Anne Herrington, and Doris Quick. "Studying Writing in Non-Academic Settings," in *New Essays in Technical and Scientific Communication: Research, Theory, Practice*, Ed. Paul V. Anderson, R. John Brockmann, and Carolyn R. Miller (Farmingdale, N.Y.: Baywood Publishing Co., Inc., 1983), pp. 17-40.

² Ellen Nold, "Nuts to Normals: Helping Them Teach Writing Across the Curriculum," Paper presented at the Annual Meeting of the Modern Language Association (94th, San Francisco, California, December 27-30, 1979).

³ Ibid, p. 4.

⁴ Susan Chisholm, "Summary Report of the Pilot Study to Evaluate the Writing Ability of Freshlaws at The University of Texas Law School," The University of Texas School of Law, Austin, Texas.

⁵ C. H. Knoblauch and Lil Brannon, "Writing as Learning Through the Curriculum," *College English*, 45 (1983), 465-474.

Writing Across the Curriculum: An Annotated Bibliography

Charles A. Bergman

The articles, papers, and reports listed here are extracted from the extensive ERIC (Educational Resources Information Center) database. The system of ERIC Clearinghouses, funded by the National Institute of Education, abstracts and indexes literature on education for NIE's monthly Resources in Education. Microfiche or paper copies of many of these materials are available; for additional information, see the individual RIE entry. RIE is available in most college and university libraries. The ERIC listing has been extensively supplemented by additional articles and books.

ADE Bulletin. "Other Departments . . . Other Ways." 69 (Fall 1981). EJ 257 650.

This collection of project and program descriptions describes a successful student recruiting method, the features of the United States Air Force Academy's English Department, a writing program for the professions, and the model interdisciplinary writing program at Pennsylvania's Beaver College.

Britton, James et al. *The Development of Writing Abilities* (11-18). London: MacMillan Education. 1975. 226 p.

Fundamental to the theory of writing and writing across the curriculum, this book is a report from the Schools Council Project on Written Language, 1965-71. Britton's research suggests that language and cognitive functions develop in parallel. Also, the research provides the data for Britton's influential categorization of writing into three types: expressive, transactional, and poetic.

Bruffee, Kenneth A. *A Short Course in Writing*. Boston, Mass.: Little, Brown & Co., Inc. 1980. 232 p.

In this textbook, Bruffee methodically develops his techniques for teaching writing and for using collaborative learning in the process. The section on collaborative learning is based on the premise that students gain certain kinds of knowledge best through a process of

communication with their peers. What students learn best through collaboration is judgment, and practice in collaboration with peers is the best way to learn to make judgments. Bruffee provides four practical models for collaborative learning: paired interviews, reading aloud to large groups, collaborative group work, and peer criticism. Instructions on managing these models, as well as sample assignments and exercises, are also provided.

Bruffee, Kenneth A. "The Brooklyn Plan: Attaining Intellectual Growth through Peer-Group Tutoring." *Liberal Education* 64 (1978): 447-68; "The Structure of Knowledge and the Future of Liberal Education." *Liberal Education* 67 (1981): 177-86; and "Liberal Education and the Social Justification of Belief." *Liberal Education* 68 (1982): 95-114.

In these three articles, Bruffee develops a theoretical rationale for collaborative learning. He argues that, since Einstein and Heisenberg and Goedel, the structure of knowledge has become less "determinate" and authoritarian, and has become instead "indeterminate." According to Bruffee, "knowledge must now be regarded as a social entity and a social phenomenon."

Claypool, Sharon H. "Teacher Writing Apprehension: Does it Affect Writing Assignments Across the Curriculum?" Research Report, Kentucky. 1980. 15 p. ED 216 387.

A study investigated the relationship between teacher writing apprehension and the uses of writing in various classrooms. Subjects were 192 secondary school teachers who completed a writing apprehension measure and a questionnaire that elicited information about their teaching experience, subject and grade level taught, and the number, length, variety, and basis of writing assignments they made per year. The questionnaire also asked teachers to indicate who they thought was responsible for teaching writing. Results showed that teachers across the curriculum who were highly apprehensive about writing assigned fewer writing tasks than did teachers who were less apprehensive. However,



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teachers in all disciplines reported an awareness that writing is the responsibility of all teachers.

Connelly, Peter J. and Irving, Donald C. "Composition in the Liberal Arts: A Shared Responsibility," *College English* 37 (March 1976): 668-70.

The English Department at Grinnell College leads faculty seminars to make faculty colleagues conscious of their involvement in writing and to help them deal successfully with student writing. The workshops found that the single most widespread external cause of bad writing is bad assignments.

Draper, Virginia. "Formative Writing: Writing to Assist Learning in all Subject Areas. Curriculum Publication No. 3." California University, Berkeley. School of Education. 1979. 65. ED 184 115.

This booklet is one of a series of teacher-written curriculum publications launched by the Bay Area Writing Project, each focusing on a different aspect of the teaching of composition. This booklet explains techniques that can be used by all teachers in all subject areas to help students use writing, not merely as a means of testing knowledge, but as a method of gaining knowledge. The first portion of the booklet defines formative writing (based on the distinction between formative and summative evaluation techniques) and its use in free writing, focused free writing, questioning, note taking, journals, and writing about assignments. The major portion of the booklet is an appendix of examples of formative writing for formal composition and for writing without formal composition as a goal.

Eastman, Arthur M. "The Foreign Mission of the University English Department." Paper presented at the annual meeting of the Modern Language Association of America, New York, December 1981. ED 215 349.

The home mission of the University English Department is the teaching of reading and writing, and its foreign mission is "converting" to a higher literacy those outside the English Department, especially those who teach English in the high schools and other subjects at the college level. Sophomore English courses, which often demand little writing, should be revised to go beyond literacy texts and convey the importance of writing skills. As for "converting" members of other academic departments to a higher literacy, programs such as the National Writing Project in which teachers from all educational levels work together to define and resolve problems across the compositional spectrum are proving to be very valuable. Another successful program is the Virginia Polytechnic Institute and State

University's Faculty Writing Workshop, which encourages teachers from all campus disciplines to incorporate writing in their assignments.

Emig, Janet. "Writing as a Mode of Learning." *College Composition and Communication*. 28 (May 1977): 122-8.

In one of the most influential articles in the formulation of the new paradigm in composition studies, Emig argues that writing is the best way to make possible certain kinds of learning. Drawing on psycholinguists and developmental psychologists, she argues that the higher cognitive functions, especially analysis, develop most fully by means of written language. This principle—that writing possesses heuristic potential—has become a basis for writing across the curriculum: writing should be incorporated in content courses because students learn through the process of writing.

Flower, Linda. "Writer-Based Prose: A Cognitive Basis for Problems in Writing." *College English* 41 (September 1979): 19-37.

In this article, Flower develops her distinction between "Writer-Based prose" and "Reader-Based prose." Drawing on the work of Janet Emig, Jean Piaget, and Lev Vygotsky, Flower describes "Writer-Based prose" as a "verbal expression written by a writer to himself and for himself. It is the record and the working of his own verbal thought." On the other hand, "Reader-Based prose" is a deliberate attempt to communicate something to a reader. Good writing, she argues, is often the cognitive process of transforming the private discoveries recorded through "Writer-Based prose" into a structure adapted for a reader. Thus, the concept of "Writer-Based prose" not only demonstrates a certain logic to the problems encountered in the writing of novices, but it also provides teachers of writing with a method for intervening in the thinking processes and demonstrating the communication strategies of writers.

Freisinger, Randall R. "Cross-Disciplinary Writing Workshops: Theory and Practice." *College English* 42 (October 1980): 154-66. EJ 231 969.

The article notes the differences between language for learning and language for informing, pointing out that the latter is overemphasized by teachers. Proposing the increased use of expressive writing in all disciplines, Freisinger argues that workshops in writing should suggest techniques for using writing more effectively in all disciplines based on a strong theoretical foundation.

Fulwiler, Toby. "Interdisciplinary Writing Workshops." *CEA Critic* 43 (January 1981): 27-32. EJ 240 344.

An interdisciplinary faculty writing workshop at Michigan Technological University was designed to provide teachers with a set of general pedagogical principles about teaching writing. The article argues for a greater use of expressive writing, for treating writing as a process, and for treating student writing problems as complex and varied.

Fulwiler, Toby, "Showing, Not Telling, at a Writing Workshop." *College English* 43 (January 1981): 55-63. EJ 240 380.

Five workshops were designed to introduce content-area teachers to the theory and practice of writing across the curriculum. The workshops asked participants to learn about writing by writing, stressing expressive writing as a means of learning, the form of writing most closely approximating the thinking process.

Fulwiler, Toby and Young, Art. *Language Connections: Writing and Reading Across the Curriculum*. Urbana, Ill.: National Council of Teachers of English. 1982. 194 p. ED 218 667.

Intended for use by college and university educators, this book contains theoretical ideas and practical activities designed to enhance and promote writing across the curriculum programs. Topics discussed in the 12 major chapters are (1) Conceptual frameworks of the Cross Writing Program; (2) Journal writing across the curriculum; (3) Writing and problem solving; (4) Assigning and evaluating transactional writing; (5) Audience and purpose in writing; (6) The poetic function of language; (7) Using narration to shape experience; (8) Readers and expressive language; (9) What every educator should know about reading research; (10) Reconciling readers and texts; (11) Peer critiques, teacher student conferences, and essay evaluation as a means of responding to student writing; and (12) The role of the writing laboratory. A concluding chapter provides a select bibliography on language and learning across the curriculum.

Fulwiler, Toby. "Journal Writing Across the Curriculum." From *Classroom Practices in Teaching English 1979-80: How to Handle the Paper Load*. Urbana, Illinois: NCTE. 1980: 15-22.

Drawing upon James Britton's research on types of writing among school children in England, Fulwiler argues that expressive writing is an important form of writing all teachers can employ in their classes, and teachers need never see nor formally evaluate that writing. Student journals are a place for more expressive

writing. The essay argues that journals increase writing fluency, facilitate learning, and promote cognitive growth, regardless of class size or disciplinary specialization.

Gordon, Joseph W. and Peterson, Linda H. "Writing at Yale: Past and Present." *ADE Bulletin* 71 (Spring 1982): 10-14. EJ 261 319.

The article describes the development of a writing program that offers diverse sources of instruction beyond the English Department.

Grattan, Mary C. and Robbing, Susan P. "Content Area Models: A Key to Student Writing Improvement in Writing Center Programs." *Teaching English in the Two-Year College* 49 ((Winter 1983): 117-21. EJ 276 169.

The article urges the use of writing models in content area instruction to demonstrate to students exactly what they are asked to produce and suggests that content area faculty join forces with English faculty in the teaching of composition.

Graves, Richard L. "Using Writing Models from Across the Curriculum." *English Quarterly* 14 (Winter 1981): 31-40. EJ 261 471.

The article describes the use of literary models, exemplified by scientific discourse and popular folk music, in a composition program.

Hamilton, David. "Interdisciplinary Writing." *College English* 41 (March 1980): 780-90, 795-96. EJ 225 308.

In an attempt to define what is meant by interdisciplinary writing, the article considers the problems of writing courses for science students. On the one hand, the course can ask for the professional prose of scientists; on the other, the course can have the students write as journalists. Both approaches have problems. A third alternative is to have students write "serious parodies," classic sorts of scientific problems that students define and address experimentally.

Herrington, Anne J. "Writing to Learn: Writing Across the Disciplines." *College English* 43 (April 1981): 379-87. EJ 243 727.

An interdisciplinary writing project developed specific writing strategies that teachers from other disciplines have used effectively in their classes. Faculty are encouraged to design writing assignments linked to course objectives and respond to student writing for its value as discovery learning.

Holzman, Michael. "Articulating Composition." *College English* 45 (March 1983): 288-95. EJ 276 133.

The article describes a useful internal structure for a college writing program and one method of fitting a composition program into the university through linking the teaching of writing skills to lower-division general education courses.

Jacobs, Suzanne F. "Writing Across the Curriculum: An Update: Closeup: The Teaching of Writing in Great Britain." *English Journal* 67 (November 1978): 64-7. EJ 190 318.

The University of London's Writing Across the Curriculum project was the origin of this movement in writing. The article describes the contents of three books which resulted from the project: "Understanding Children Writing," "Understanding Children Talking," and "Writing and Learning Across the Curriculum 11-16."

Journal of Basic Writing. "Writing Across the Curriculum." 2 (Spring-Summer 1980).

The entire issue is devoted to Writing Across the Curriculum. The first article, Elaine Maimon's "Cinderella to Hercules," addresses the theoretical issues of interdisciplinary writing programs. The other articles are, in order of appearance: "Notes Toward Writing Across the Curriculum: Some Collaborative Efforts," Janis Forman; "Writing Instructors Across the Curriculum: Two Programs," Martha Nochimson; "An Approach to Integrating Writing into a History Course," Anita Brostoff and Barry K. Beyer; "The In-Course Writing Workshop in a Program of Writing Across the Curriculum," John D. Reiff; "Sound and Sense: Writing about Music," Robert D. Yanni; "Art and the Written Word," Ruth Thaler; "Writing About Law: A Composition Course for Pre-Law Students," Kate Ferguson Hirsh.

Kinneavy, James L. *A Theory of Discourse*. New York, NY: Norton. 1980. 478 p.

This book presents a systematic framework for analyzing discourse. Drawing upon various approaches to the teaching of composition from classical and contemporary sources, the theory analyzes discourse according to aims and modes. The modes of discourse as analyzed in the theory are narrative, classification, evaluation, and description. The aims of discourse are expressive, persuasive, referential, and literary. The theory provides a means of mapping the conventions of academic discourse, and thus grounds writing across the curriculum on a solid rhetorical theory.

Knoblauch, C. H. and Brannon, Lil. "Writing as Learning Through the Curriculum." *College English* 45 (September 1983): 465-74.

Although writing across the curriculum programs usually claim to teach writing as a form of learning, the article argues that most programs in fact teach little more than "grammar across the curriculum." Rather than teach the forms of academic discourse, the authors argue for seeing writing as the process of an individual mind making meaning from the materials of its experience.

Maimon, Elaine P. "Maps and Genres: Exploring Connections in the Arts and Sciences." From *Composition and Literature: Bridging the Gap*. Winifred Bryan Horner, ed. Chicago: University of Chicago Press, 1983. 110-125.

Maimon argues that the forms of writing within an intellectual community manifest the modes of thinking within that community. Because of their understanding of genre theory, literary critics are in a position to explore the generic conventions and thinking processes of the disciplinary subcommunities within the arts and sciences. The study will illuminate the way scholars behave in their disciplines. It will also help to identify the questions and issues which constitute the continuing conversations within the disciplines. By teaching students how scholars behave within the conventions of the academic genres, teachers both in composition and in content courses can help students enter into the scholarly conversations. Writing teachers should combine what is known about the processes of composing and about the multiplicity of genres. Academic genres are thus understood as heuristic devices.

Maimon, Elaine P. "Cinderella to Hercules: Demythologizing Writing Across the Curriculum." *Journal of Basic Writing* 2 (Spring-Summer 1980): 3-11. EJ 238 563.

The article explores and puts to rest four major misconceptions that faculty members from English as well as other disciplines hold about teaching writing. It also makes suggestions that may help English teachers who want to establish an institution-wide program of writing to gain the cooperation of other departments.

Maimon, Elaine P. "Talking to Strangers." *College Composition and Communication* 30 (December 1979): 364-9.

The article argues that students entering college have difficulty learning the conventions of public prose generally and the special conventions of different disci-

plines. The traditions of academic prose should be explained. Several suggestions for both freshman English and other courses—including multiple drafts and peer review—are offered to make writing part of the learning process.

Maimon, Elaine P., et al. *Writing in the Arts and Sciences*. Boston: Little, Brown & Co., Inc. 1981. 336 p.

A collaborative writing effort by scholars in such fields as English, biology, and psychology, this textbook is the result of Beaver College's pioneering project in Writing Across the Curriculum. An introduction to academic writing and reading, the text presents genres that define the conventions of writing in several academic disciplines. It is intended to help students learn to master academic prose by showing them how writers in the academy actually behave.

Maimon, Elaine P. "Writing in the Total Curriculum at Beaver College." *CEA Forum* 9 (December 1979): 7-10.

Three or four liberal arts faculty members work together in a course cluster for a semester to improve writing in their classes. Writing is made a natural part of each class meeting; faculty consult each other on responding to student writing; the students learn to write and think in the special methods of the disciplines.

Martin, Nancy, et al. *Writing and Learning Across the Curriculum 11-16*. London: Ward Lock Educational. 1976. 176 p.

Arising out of the Schools Development Project on Writing Across the Curriculum in London, the book describes the role of language in all parts of the curriculum. Begun in 1971, the project described in this book gave to Writing Across the Curriculum both its name and its major theoretical principles: that writing serves various functions and that in a particular academic context writing can most completely fulfill its learning function.

Moffet, James. *Active Voice: A Writing Program Across the Curriculum*. Montclair, NJ: Boynton/Cook. 1981. 148 p. ED 225 159.

Intended for content area teachers, this booklet provides a coherent program for building a school-wide composition curriculum. The first section contains an explanation of the program and its background, including sequence and classroom processes. The major portion of the book is divided into three groups of assignments. Group one contains exercises for revising inner speech,

such as stream of consciousness, spontaneous memory monologue, and composed reflection. The exercises in group two, dialogues and monologues, include interior and exterior monologues, one act plays, and dialogues converted to essay. The third group deals with converting narrative into essay through exercises such as correspondence, diary, eyewitness memoir, directions, research, and theory. The book concludes with a list of collateral readings and a discussion of point of view in writing.

Nold, Ellen W. "Nuts and Normals: Helping Them Teach Writing Across the Curriculum." Paper presented at the annual meeting of the Modern Language Association, San Francisco, December 1979. 12 p. ED 185 545.

This paper explains one administrator's hypotheses, reasoning, and methods used in promoting writing in a college engineering department. Principles underlying the program related to the motivations of faculty and the structure of teaching writing are discussed, and a six-hour seminar required of engineering faculty appointed to teach writing is outlined. Also discussed is the program designed to provide writing tutors to the classes of the members of the engineering faculty who do not want to teach writing, along with the training course required of the tutors.

Odell, Lee. "The Process of Writing and the Process of Learning." *College Composition and Communication* 31 (February 1980): 42-50. EJ 225 201.

Teachers need to be aware of the diverse conceptual demands made by writing assignments in various disciplines. Illustrated by analyzing four assignments, the paper argues that writing is a form of learning and the forms of thinking vary among the academic disciplines.

Raimes, Ann. "Writing and Learning Across the Curriculum: The Experience of a Faculty Seminar." *College English* 41 (March 1980): 797-801. EJ 225 309.

The article reviews the positive effects of participating in a faculty seminar on writing across the curriculum, noting that writing must extend into subject area courses but that the curriculum must also be brought into writing courses, especially by an increased attention to analytical writing in composition.

Rizzolo, Patricia. "Peer Tutors Make Good Teachers: A Successful Writing Program." *Improving College and University Teaching* 30 (Summer 1982): 115-19. EJ 268 483.

A university English department's writing center uses peer tutors trained in questioning, explanation, and constructive criticism techniques. The tutors are a support service in the writing across the curriculum program.

Rose, Mike. "When Faculty Talk About Writing." *College English* 41 (November 1979): 272-9.

The article describes a faculty workshop at a large state institution, UCLA, involving a group of 96. Faculty members confronted and resolved a conflict over the various styles of academic disciplines. Faculty members also had to face the implications of an interdisciplinary writing program: how should it be organized, who should teach in the program, and how should the writing be taught?

Tighe, M. A. and Koziol, S. M., Jr. "Practices in the Teaching of Writing by Teachers of English, Social Studies, and Science." *English Education* 14 (May 1982): 76-85.

The article reports on a survey of English, social studies, and science teachers about perceived and actual classroom writing instruction practices.

Walpole, Jane R. "Content Writing." *Teaching English in the Two-Year College* 7 (Winter 1981): 103-06. EJ 250 944.

There is a discrepancy between writing ability in composition classes and writing performance in other classes. The article suggests exercises that will better prepare composition students for the writing that will be required of them in other courses and in their careers.

Weiss, Robert and Peich, Michael. "Faculty Attitude Change in a Cross-Disciplinary Writing Workshop." *College Composition and Communication* 31 (February 1980): 33-41.

West Chester State College held a faculty workshop on writing based on three assumptions: writing is a mode of learning, academic writing is complex for students with usually unstated conventions, and the writer is a real person. The workshop is described, along with a "pattern of attitude change" that led to a campus-wide program in writing.

Williams, Jeanette T. "Learning to Write, or Writing to Learn?": A Critical Analysis and Evaluation of the Schools Council Project of Written Language of 11 to 18-year olds and its development project, 'Writing

Across the Curriculum.'" Atlantic Highland, N.J.: Humanities Press. 1978. 64 p. ED 168 028.

The theory and research resulting from the Writing Research Unit of the Schools Council Project in England has received widespread attention. In response to that attention, and because the ideas of "Writing Across the Curriculum" developed in the Project are now not always fully understood, Williams undertook a critical analysis of the whole Writing Across the Curriculum Project. Her analysis traces the Project's evolution, examines its design and development, compares its theories of language to other language theories, and considers the role of theory in curriculum research. The Project's essential value appears to be that its position on language provides a powerful heuristic that teachers, especially English teachers, might use in the classroom and for purposes of research.

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